

Customer

Supplier

Company name
Editor
Phone number
E-mail

Fields of Application

Water supply systems.
Booster sets in high rise buildings and industry.
Water treatment.
Industrial washdown systems.
Fire extinguishing plants.
Boiler feed and condensate transfer.
Sanitary and cleaning installations.
For industrial applications and public services.
Water distribution services.
Industrial applications.
Shipbuilding, mining, power stations, filter units.
Irrigation plants.
Central heating systems.



Design Specification

The OMK Pump is a horizontal axis, radially split, ring section design multistage centrifugal pump of non-self priming type.

Impellers are between bearings, single entry, closed type and dynamically balanced. Impeller diameter will be corrected for optimal adherence to the required duty point.

The axial thrust is relieved by relieving boreholes in each impeller. The remaining thrust can be borne by large-sized bearings.

Pumps with exchangeable wear rings are available upon request.

The pump series consists of 5 sizes. OMK 32, 40, 50, 65 and 80. Stages are from 2 up to max. 14 stages.

Pump and motor are fitted on a common base plate and connected to each other via flexible coupling.

Normally, discharge part is at motor side on top, suction part is at dead end side on the right and rotation of direction is clockwise when viewed from driver.

Suction and discharge nozzles may be a choice of three 90° positions. By special request, it is possible to put the suction nozzle at the motor side. In this arrangement pump and motor rotation must be counter clockwise.

Technical Data

Suction Flanges	: DN50 - DN125 (PN25)
Discharge Flanges	: DN32 - DN80 (PN40)
Operating Pressure	: 40 bar
Flow Range	: 5 - 220 m ³ /h
Head Range	: 30 - 400 m
Temperature Range	: Up to 140 °C
Speed Range	: 1450 - 3600 rpm

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Operating data specification

Pumped fluid	Water		Rated flow		m ³ /h
Solids			Rated head		m
Kind			Geodetic head		m
Percentage of solid content	0		Available system NPSH		m
pH value			Inlet pressure (pin)	0	kPa
Temperature	20	°C	Altitude above sea level	100	m
Density	998.3	kg/m ³	Max. operating pressure	1060	kPa
Kin. viscosity	1.005	mm ² /s	Max. diff. pressure	1060	kPa
Vapour pressure	2.34	kPa			

Pump

Make	MAS DAF		Impeller type		
Pump type	OMK 40/ 3		Impeller construction		
Frame size			Impeller Ø		
Design			Max.	160	mm
Self priming	<input checked="" type="checkbox"/> No		designed	160	mm
Speed	2900	rpm	Min.	130	mm
Stages	3		Flow		
Suction port			Nominal	28	m ³ /h
Pressure rating	PN25		Max.	44.4	m ³ /h
Nominal pipe size	DN65		Min.	0	m ³ /h
Standard	DIN		Head		
Discharge port			Nominal	93	m
Pressure rating	PN40		Min.	58.7	m
Nominal pipe size	DN40		Max.	108	m
Standard	DIN		Shut off head	108	m
Shaft power		kW	NPSH3		m
Shaft power P2(Q=max.)	14.2	kW	Efficiency		%

Motor

Make/Type	11 KW-2900 RPM / 160M	
Specific design	IE3 / 50 Hz / Pole pairs 1	
Rated power	11	kW
Electric voltage	3~ 400	V
Speed	2945	rpm
Electric current	19.5	A
Frame size	160M	
Degree of protection	IP 55	
Type of protection		
Explosion protection		

Coupling

Make/Type	
Series	
Spacer length	mm
Frame size	

Materials

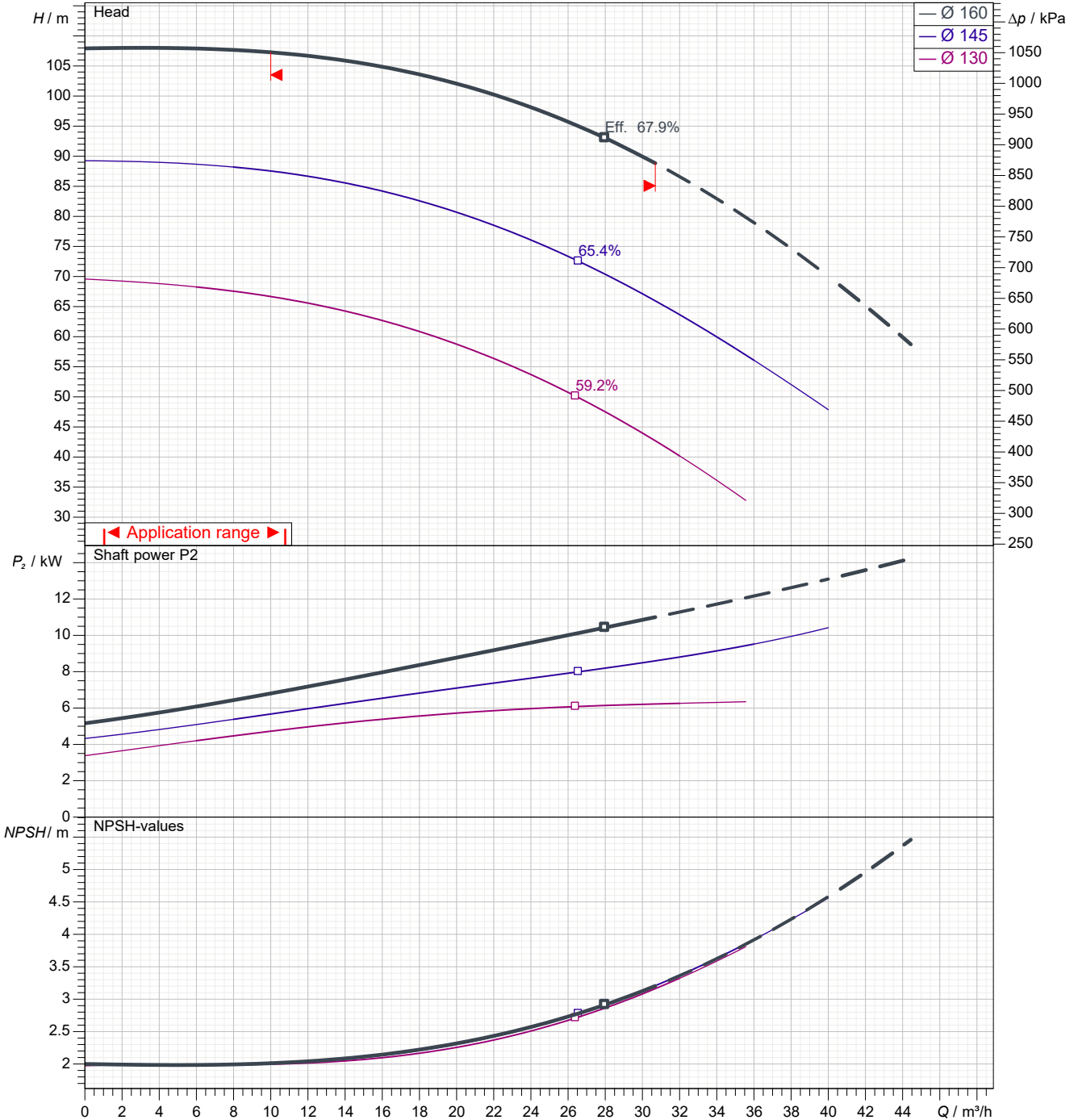
Pump		Shaft seal	Soft Packing
Pump Casing	GJL-250 (GG25)	Material code	
Impeller	GJL-250 (GG25)		
Shaft	A 276 Type 420 (X20Cr13)		
Bearing Housing	GJL-250 (GG25)		

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Power data referred to: Water; 20°C; 998.3kg/m³; 1.005mm²/s Sense of rotation Clockwise from the drive end



Pump curves in accordance with ISO 9906 2B

Pumped fluid	Water		Rated flow	m ³ /h
Temperature	20	°C	Rated head	m
Density	998.3	kg/m ³	Shaft power	kW
Kin. viscosity	1.005	mm ² /s	Speed	2900 rpm
Vapour pressure	2.34	kPa	NPSH3	m
Impeller Ø	160	mm	Efficiency	%

Subject to change

Projec

Issue date
2023-07-29

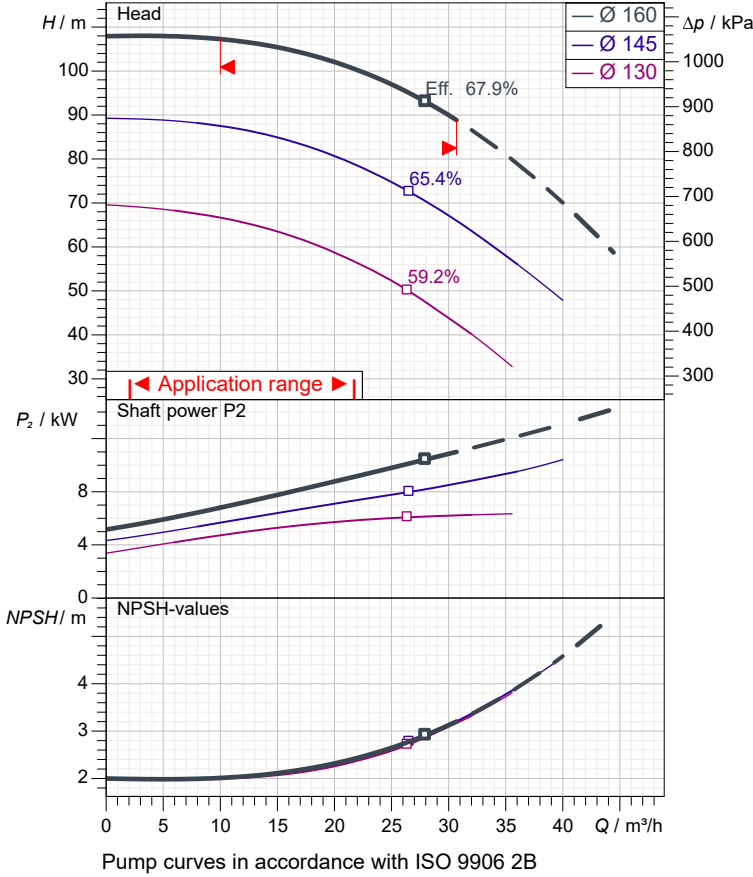
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Performance curves



Pump

Make	MAS DAF
Pump type	OMK 40/ 3
Design	
Suction port	
Pressure rating	PN25
Nominal pipe size	DN65
Standard	DIN
Discharge port	
Pressure rating	PN40
Nominal pipe size	DN40
Standard	DIN

Operating data specification

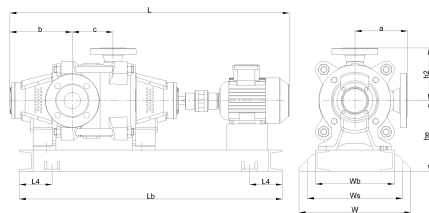
Pumped fluid	Water	
Temperature	20	°C
Density	998.3	kg/m ³
Kin. viscosity	1.005	mm ² /s
Vapour pressure	2.34	kPa
Rated flow		m ³ /h
Rated head		m
Shaft power		kW
Speed	2900	rpm
NPSH3		m
Efficiency		%
Impeller Ø	160	mm

Motor

Make/Type	11 KW-2900 RPM / 160M
Specific design	IE3 / 50 Hz / Pole pairs 1
Rated power	11 kW
Speed	2945 rpm
Electric voltage	3~ 400 V
Electric current	19.5 A
Degree of protection	IP 55

Materials

Shaft seal	Soft Packing
Material code	



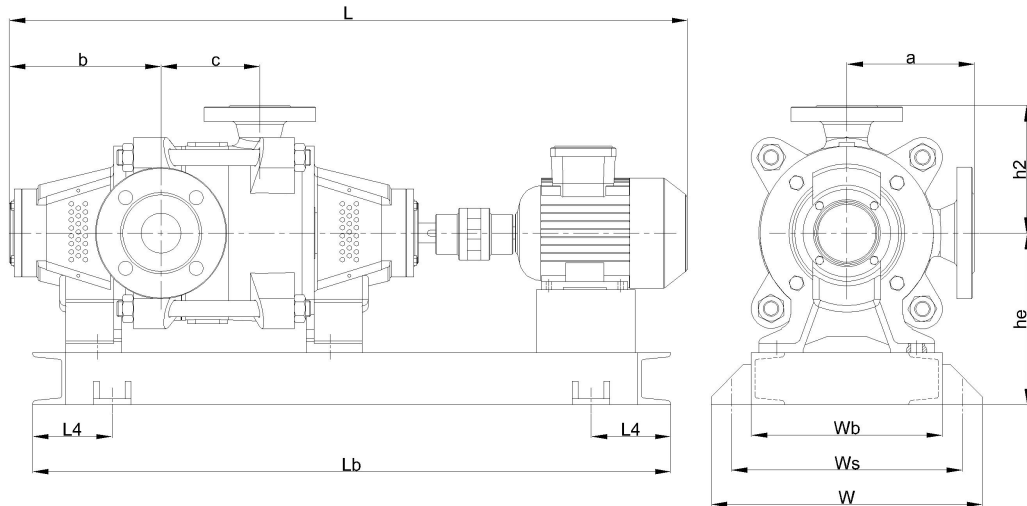
Dimensions	mm
a	180
b	196
c	191
h2	180
he	240
L	1266
L4	200
Lb	1200
w	440
wb	340
ws	390

Pump Casing	GJL-250 (GG25)
Impeller	GJL-250 (GG25)
Shaft	A 276 Type 420 (X20Cr13)
Bearing Housing	GJL-250 (GG25)

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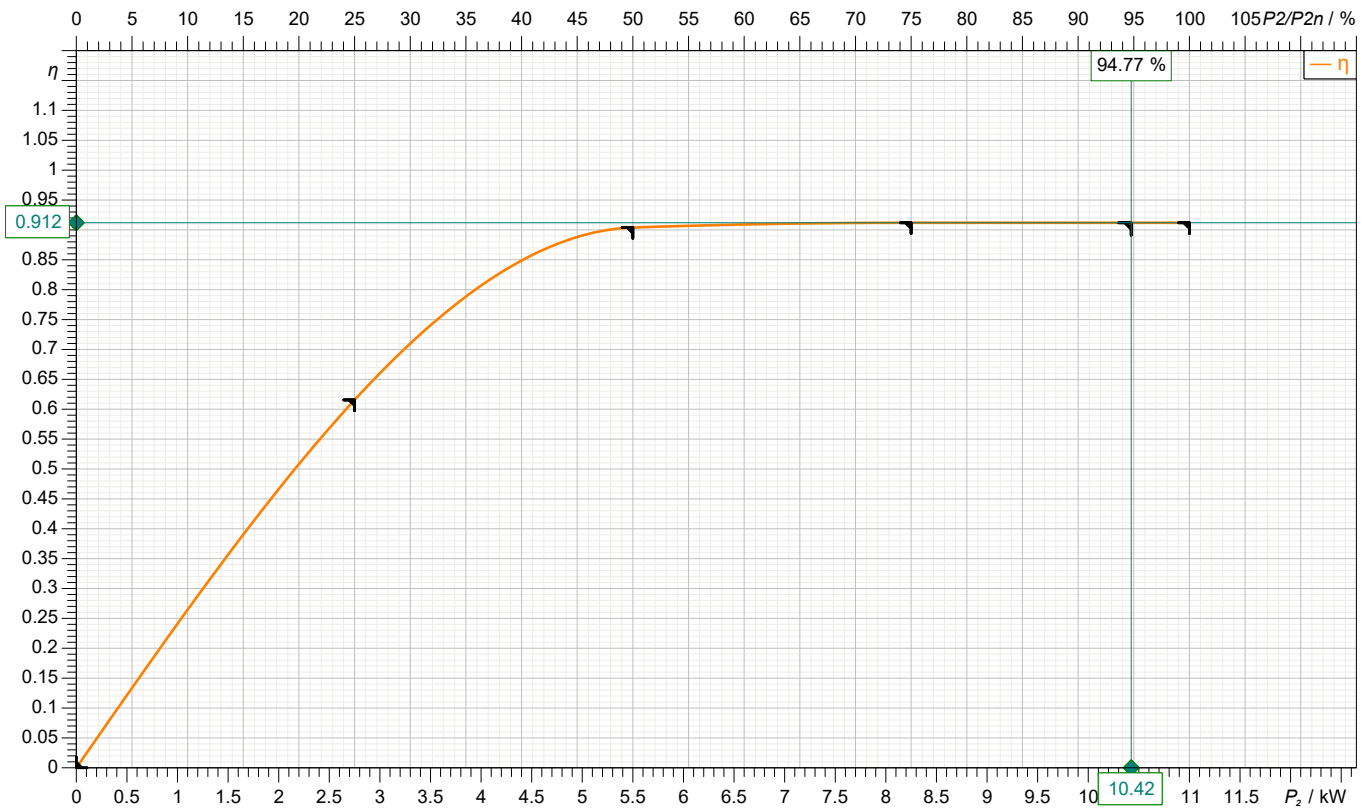
Dimensions	mm	Inlet / outlet	
a	180	Suction port	Discharge port
b	196	DN65	DN40
c	191	PN25	PN40
h2	180		
he	240		
L	1266		
L4	200		
Lb	1200		
w	440		
wb	340		
ws	390		

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motor data



Symbol	No load	25 %	50 %	75 %	100 %	125 %
P_2 / kW	0	2.75	5.5	8.25	11	
P_1 / kW		4.467	6.084	9.046	12.06	
η / %	0	61.56	90.4	91.2	91.2	

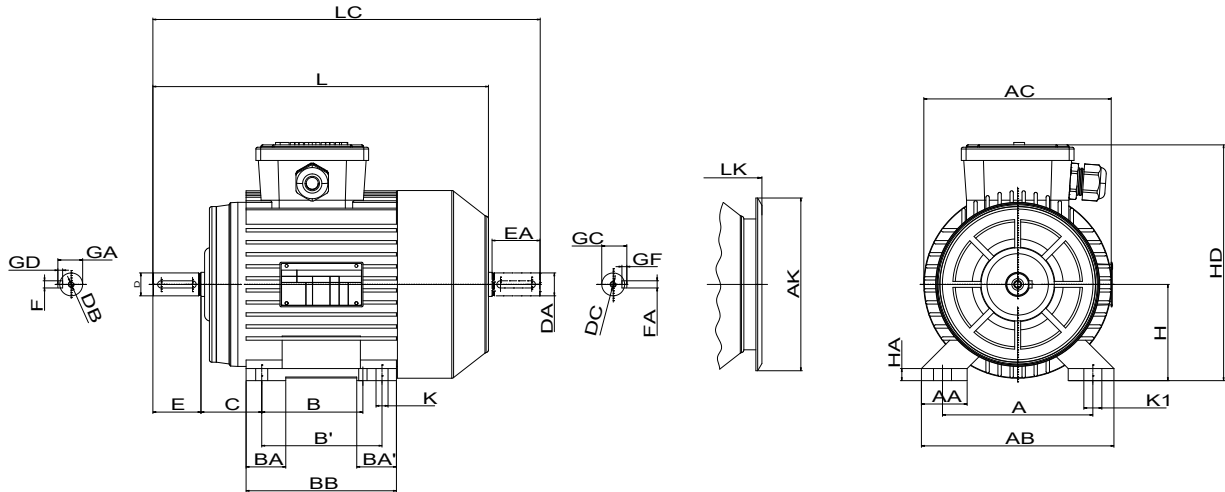
Motor

Make/Type	11 KW-2900 RPM / 160M	Degree of protection	IP 55
Specific design	IE3 / 50 Hz / Pole pairs 1	Type of protection	
Rated power	11 kW	Explosion protection	
Electric voltage	3~ 400 V	Service factor	1.15
Number of poles	2	Starting current	
Speed	2945 rpm	Starting torque	
Electric current	19.5 A	Moment of inertia	
Power factor	0.89	No. starts per hour	
Frame size	160M	Rated torque	35.7 Nm
Efficiency class	IE3	Insulation class	F (155C°)

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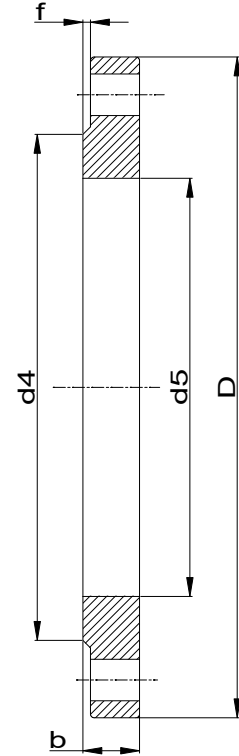
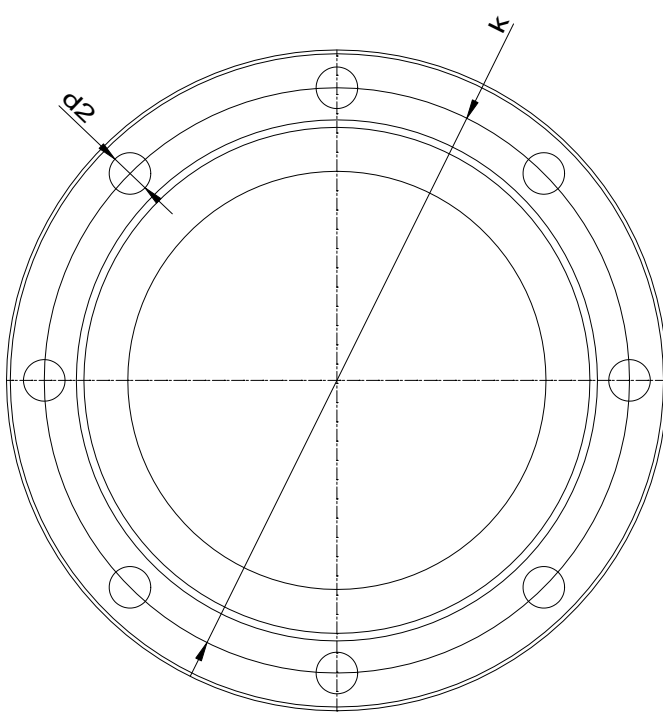


Dimensions	mm		
A	254	E	110
AA	60	EA	110
AB	312	FxGF	12X8
AC	310	FxGD	12X8
AK	303	GA	45
B	210	GC	45
B'	-	H	160
BA	62	HA	22
BA'	-	HD	380
BB	260	K	15
C	108	L	600
D	42	LC	716
DA	42	LK	657
DB	M16		
DC	M16		

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Suction connection

DN65
PN25

Discharge connection

DN40
PN40

Dimensions	mm
b	22
D	185
d2	18
d4	122
d5	77.5
DN	65
f	2
k	145
n	8

Dimensions	mm
b	18
D	150
d2	18
d4	88
d5	49.5
DN	40
f	2
k	110
n	4



Spare part list
OMK 40/ 3

Revision number

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