

## Customer

## Supplier

Company name  
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E-mail

**Fields of Application**

Water supply and booster stations  
Irrigation, overhead irrigation and draining  
Filling and emptying of tanks and containers  
Circulating of hot and cold water in HVAC systems  
Pumping of condensate  
Water circulating for swimming pools  
Sanitary and cleaning installations  
For industrial applications and public services  
Fresh water supply on ships

**Design Specification**

Single-stage, end suction, centrifugal volute pump.

Main dimensions according to EN 733.

Single entry, closed impeller is hydraulically thrust compensated and dynamically balanced.

Pump and motor are separate components, connected to each other via a flexible coupling and mounted on a common base plate.

Maintenance is very much easier, the impeller shaft and other rotating parts being removable with no need to disconnect the suction and delivery pipes.

In fact the use of one extension coupling enables a pump to be dismantled without moving either the driver or the pump casing.

Maximum interchangeability of components, identical parts can be used with various sizes of a pump, which greatly simplifies and reduces stock of spare parts.

**Technical Data**

Suction Flange	: DN50 - DN400
Discharge Flange	: DN32 - DN350
Operating Pressure	: 10 bar
Temperature Range	: Up to 140 °C
Speed Range	: 1000 - 3500 rpm
Flow Range	: 5 - 3500 m <sup>3</sup> /h
Head Range	: 4 - 105 m

**Bearings**

The pump has sturdy maintenance-free antifriction bearings, which are greased for life with high-temperature grease. A deflector on the shaft prevents leakage fluid from getting into bracket.

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**Operating data specification**

Pumped fluid	Water		Rated flow		m <sup>3</sup> /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 <sup>3</sup>	Max. operating pressure	1030	kPa
Kin. viscosity	1.005	mm <sup>2</sup> /s	Max. diff. pressure	1030	kPa
Vapour pressure	2.34	kPa			

**Pump**

Make	MAS DAF		Impeller type		
Pump type	NM 80-250		Impeller construction		
Frame size	80-250		Impeller Ø		
Design	End Suction		Max.	268	mm
Self priming	<input checked="" type="checkbox"/> No		designed	268	mm
Speed	2975	1/min	Min.	218	mm
Stages	1		Flow		
Suction port			Nominal	235	m <sup>3</sup> /h
Pressure rating	PN16		Max.	311	m <sup>3</sup> /h
Nominal pipe size	DN100		Min.	0	m <sup>3</sup> /h
Standard	DIN		Head		
Discharge port			Nominal	92.4	m
Pressure rating	PN16		Min.	67.9	m
Nominal pipe size	DN80		Max.	105	m
Standard	DIN		Shut off head	105	m
Shaft power		kW	NPSH3		m
Shaft power P2(Q=max.)	88.2	kW	Efficiency		%

**Motor**

Make/Type	90 KW-2900 RPM / 280M	
Specific design	IE2 / 50 Hz / Pole pairs 1	
Rated power	90	kW
Electric voltage	3~ 400	V
Speed	2980	1/min
Electric current	148	A
Frame size	280M	
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)		

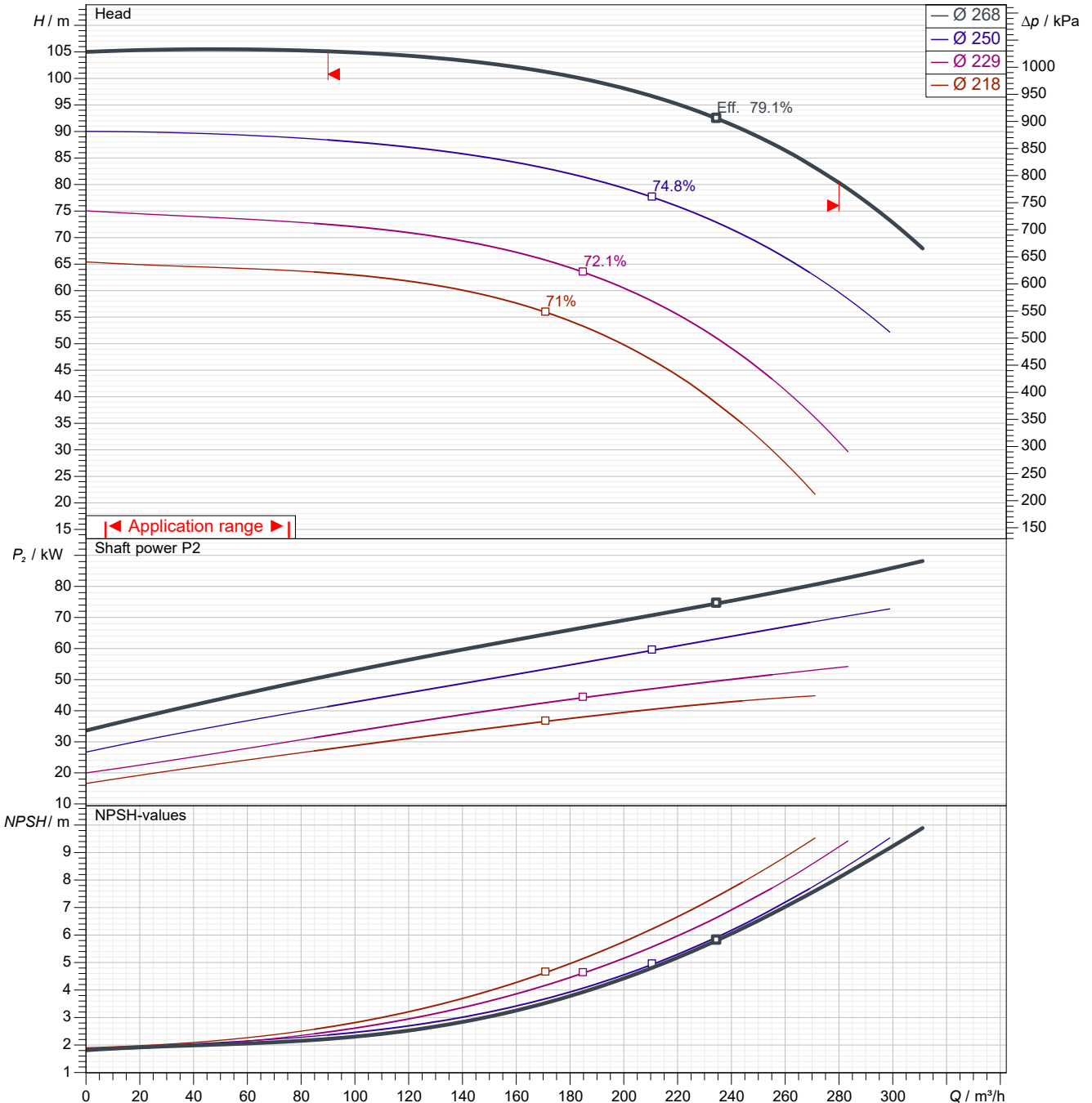
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Power data referred to: Water; 20°C; 998.3kg/m<sup>3</sup>; 1.005mm<sup>2</sup>/s      Sense of rotation      Clockwise from the drive end

Missing or invalid parameter (REFDIAM)



Pump curves in accordance with ISO 9906 2B

Pumped fluid	Water		Rated flow	m <sup>3</sup> /h
Temperature	20	°C	Rated head	m
Density	998.3	kg/m <sup>3</sup>	Shaft power	kW
Kin. viscosity	1.005	mm <sup>2</sup> /s	Speed	2975 1/min
Vapour pressure	2.34	kPa	NPSH3	m
Impeller Ø	268	mm	Efficiency	%

Subject to change

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2022-04-11

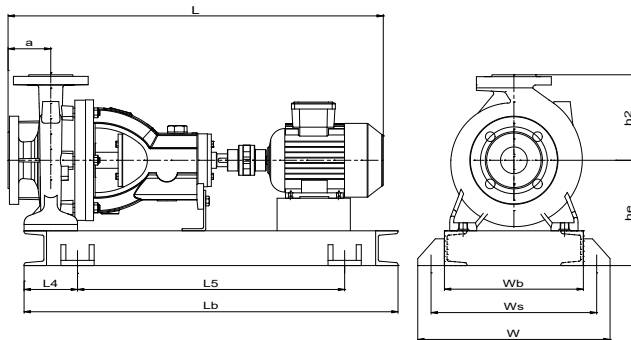
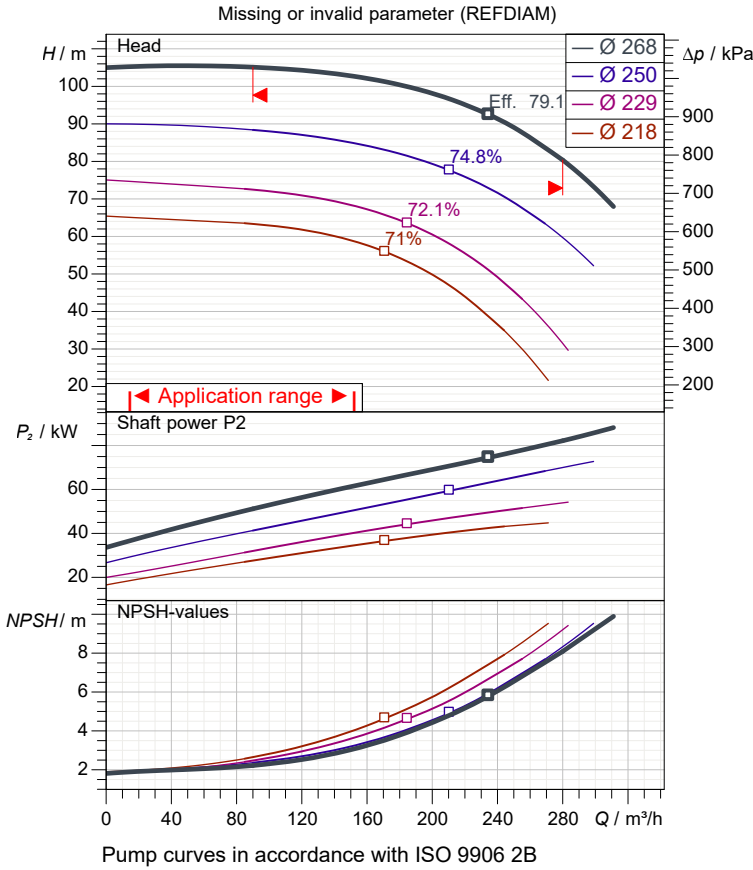
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**Performance curves**



Dimensions	mm
a	125
h2	280
he	420
L	1596
L4	200
L5	1050
Lb	1450
w	720
wb	600
ws	660

**Pump**

Make	MAS DAF
Pump type	NM 80-250
Design	End Suction
Suction port	
Pressure rating	PN16
Nominal pipe size	DN100
Standard	DIN
Discharge port	
Pressure rating	PN16
Nominal pipe size	DN80
Standard	DIN

**Operating data specification**

Pumped fluid	Water	
Temperature	20	°C
Density	998.3	kg/m <sup>3</sup>
Kin. viscosity	1.005	mm <sup>2</sup> /s
Vapour pressure	2.34	kPa
Rated flow		m <sup>3</sup> /h
Rated head		m
Shaft power		kW
Speed	2975	1/min
NPSH3		m
Efficiency		%
Impeller Ø	268	mm

**Motor**

Make/Type	90 KW-2900 RPM / 280M	
Specific design	IE2 / 50 Hz / Pole pairs 1	
Rated power	90	kW
Speed	2980	1/min
Electric voltage	3~ 400	V
Electric current	148	A
Degree of protection	IP 55	

**Materials**

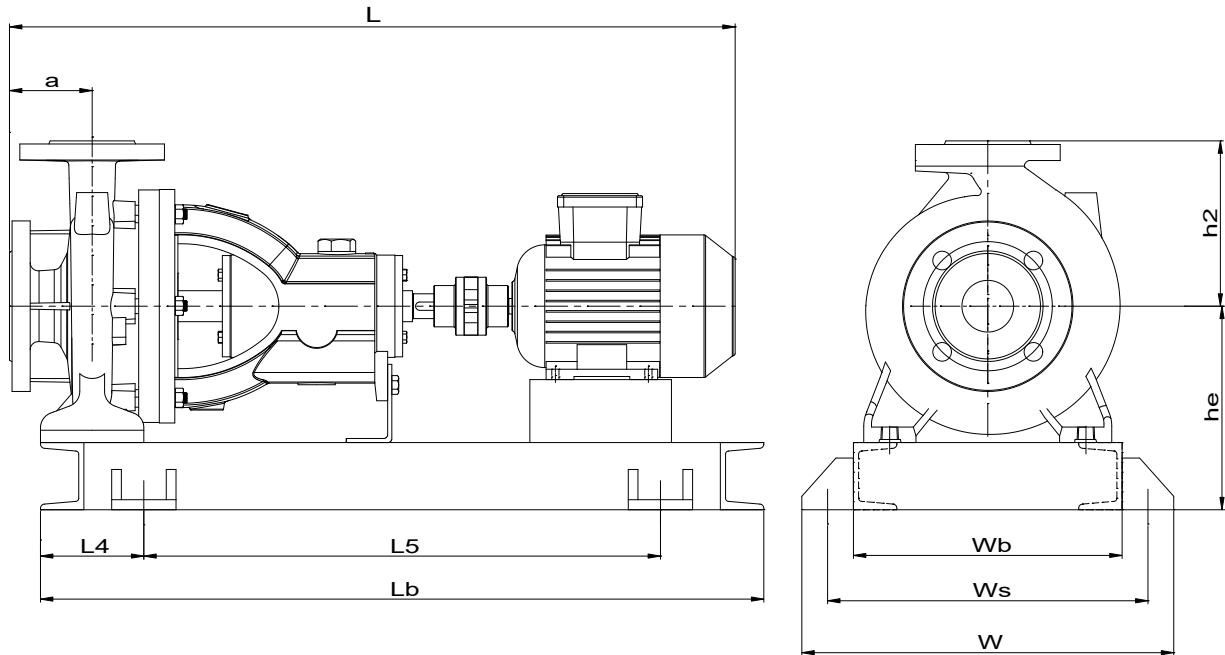
Shaft seal	Soft Packing
Material code	

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

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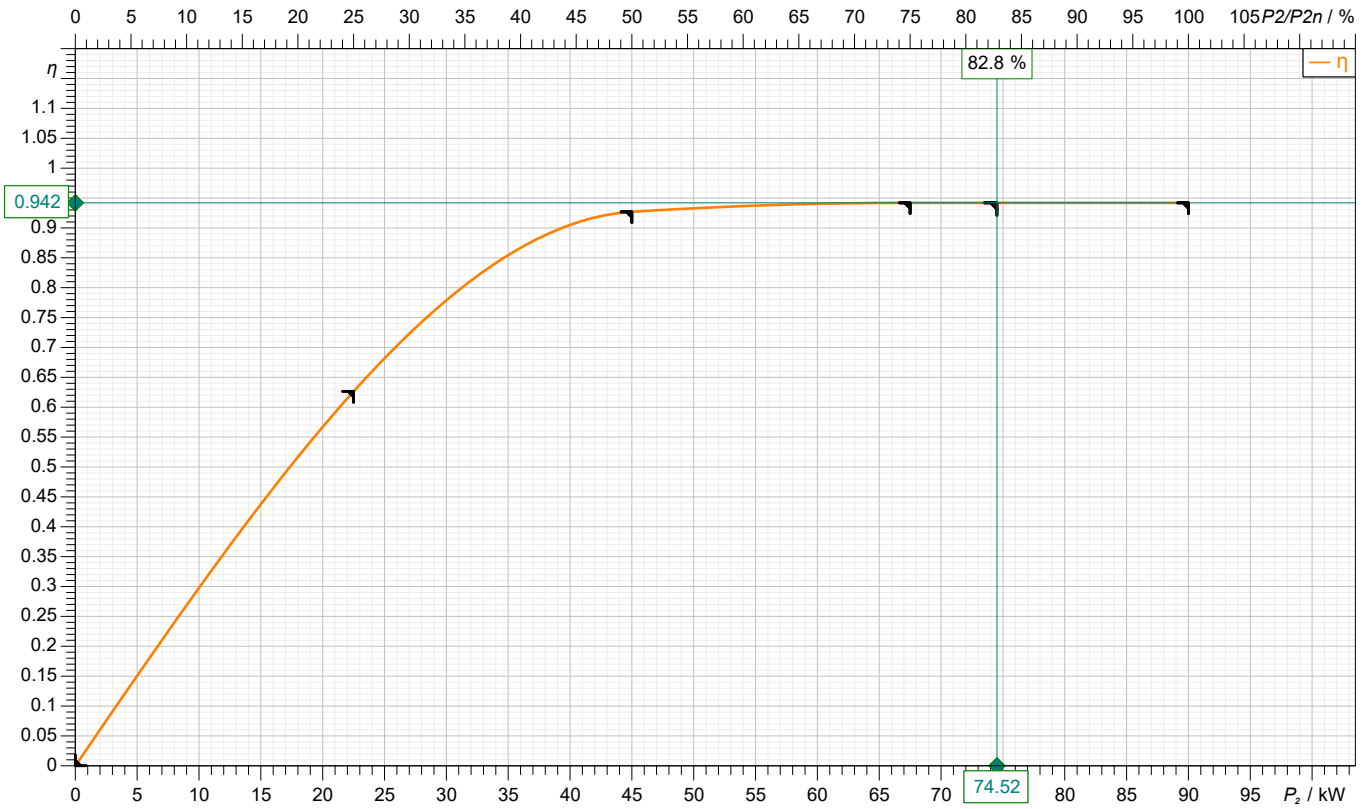
Dimensions	mm	Inlet / outlet	
a	125	Suction port	Discharge port
h2	280	DN100	DN80
he	420	PN16	PN16
L	1596		
L4	200		
L5	1050		
Lb	1450		
w	720		
wb	600		
ws	660		

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**motor data**



Symbol	No load	25 %	50 %	75 %	100 %	125 %
P <sub>2</sub> / kW	0	22.5	45	67.5	90	
P <sub>1</sub> / kW		35.91	48.54	71.66	95.54	
η / %	0	62.64	92.7	94.2	94.2	

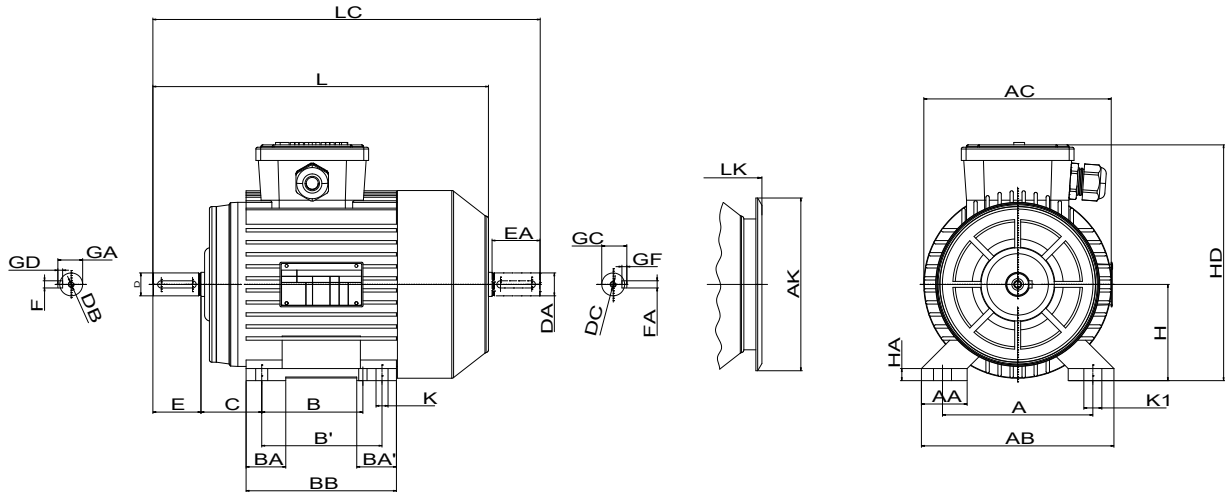
**Motor**

Make/Type	90 KW-2900 RPM / 280M	Degree of protection	IP 55
Specific design	IE2 / 50 Hz / Pole pairs 1	Type of protection	
Rated power	90 kW	Explosion protection	
Electric voltage	3~ 400 V	Service factor	1.15
Number of poles	2	Starting current	
Speed	2980 1/min	Starting torque	
Electric current	148 A	Moment of inertia	
Power factor	0.92	No. starts per hour	
Frame size	280M	Rated torque	288 Nm
Efficiency class	IE2	Insulation class	F (155C°)

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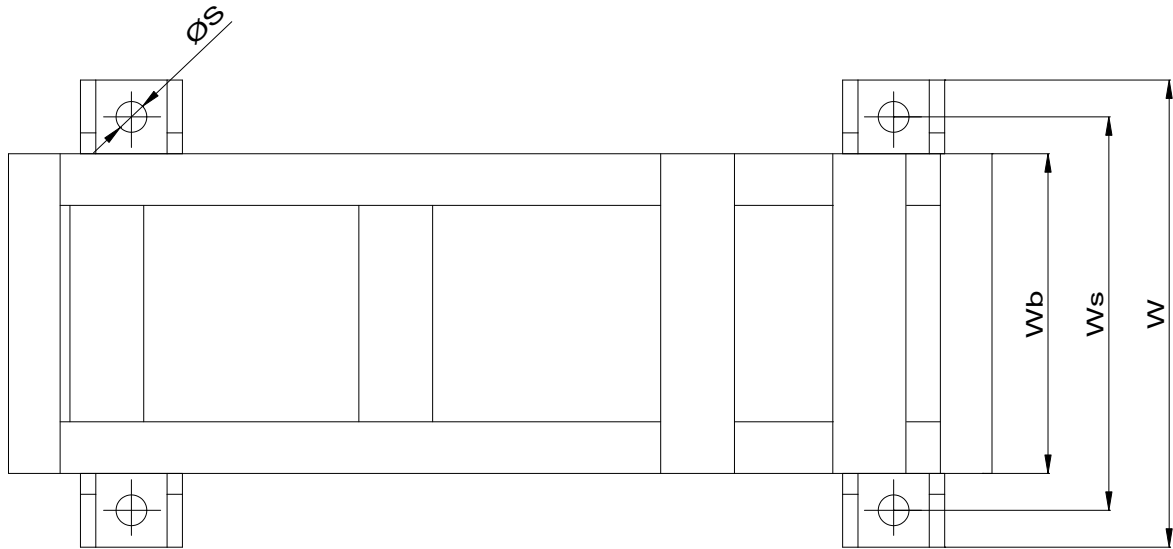
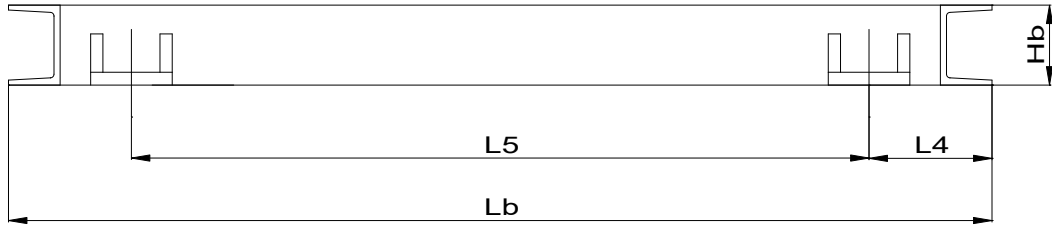


Dimensions	mm		
A	457	E	140
AA	120	EA	140
AB	550	FxGF	20X12
AC	544	FxGD	20X12
AK	440	GA	79.5
B	-	GC	79.5
B'	419	H	280
BA	85	HA	40
BA'	128	HD	630
BB	474	K	24
C	190	L	958
D	75	LC	1106
DA	75	LK	1014
DB	M20		
DC	M20		

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Dimensions	mm
hb	140
L4	200
L5	1050
Lb	1450
S	24
w	720
wb	600
ws	660





**Spare part list**  
NM 80-250

Revision number

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NM 80-250

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