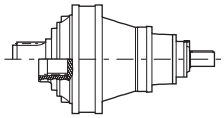
1. DESCRIPTION OF GEAR UNITS

1. 齿轮装置说明

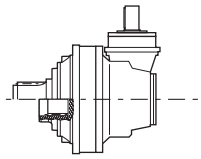
SL

Version

形式



SL



SC

3002

3001, 3002, 3003, 3004
4001, 4002, 4003, 4004

1 Stage 级	2 Stages 级	3 Stages 级	4 Stages 级

3002, 3003, 3004
4002, 4003, 4004

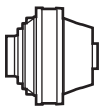
2 Stages 级	3 Stages 级	4 Stages 级

MP

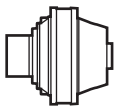
Output configuration

输出配置

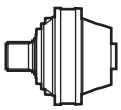
FE



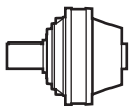
FS



MP



MP1



15.96

Effective ratio

有效比

⇩ See data sheet / 请参阅数据表 (I_{eff})

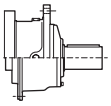
i_{eff}	n_1 [rpm] 1500			1000			500			T_{2MAX}	P_r
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SL3002											
15.96	94	21760	214	63	24574	161	31.3	30255	99	76000	38
17.86	84	22471	198	56	25378	149	28.0	31255	92	76000	38

S-65CR1

Input configuration

输入配置

Cylindrical male input shaf / 圆柱形凸式输入轴



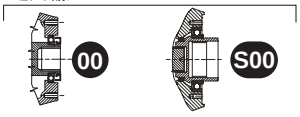
S-45CR1
S-46C1
S-65CR1
S-90CR1
ISL150
ISL250
ISL300
IS300
IS600
IS850

65.105
48.82
45.70

* 

SU1
SU2
SU3
SUF1
SUF2
SUF3

Universal input / 通用输入



Multidisc brakes
多片式制动器

FL250
FL350
FL450
FL650
FL750
FL960

* 

FL620.U
FL635.U

* Only for universal input

仅适用于通用输入

00

B3

Mounting position

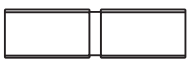
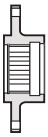
装配位置

B3 B3A V5B
V5 B3B V6B
V6 B3C
B3D

FR400

Output shaf accessories

输出轴附件

Splined bar 齿条 **BS...**	Shaft cover 轴盖 **RDF...**	Driving flange 花键衬套 **FR...**	Splined bush 驱动法兰 **MS...**
			

Model code example
型号代码示例

SL3002/MP/15.96/S-65CR1/B3/FR400

2. TECHNICAL DESCRIPTIONS

Reduction ratio i_{eff}

It represents the ratio between gear unit input and output speed.
The modularity of the YIY Riduttori range offers the availability of other ratios in addition to those given:
consult YIY Riduttori for the availability of further ratios.

Output torque T_2 [Nm]

Gear unit output torque referred to 10,000 hours of operation, calculated according to I.S.O. (D.P. 6336).
This value (application factor equal to 1) is given for gear units with in-line and right-angle versions according to the different input speeds.

Max. torque T_{2max} [Nm]

Max. permissible output torque, as peak or for short periods.
For drives involving a high number of starts or reversals, also the max. operational torque must be opportunely limited according to the fatigue resistance of the gears or shafts.

Nominal torque T_N [Nm]

The conventional torque characterizing the size of the gear unit.
It corresponds to the limit torque according to I.S.O. (P.D. 6336) of the strongest ratio of each size.

Nominal power P_2 [kW]

A combination of the torque value relevant to a duration of 10,000 h at the relative gear unit output speed.
For right-angle units the above values refer to a version with universal input.
In those cases when the nominal power value in the application considered exceeds the relevant gear unit thermal rating, a special auxiliary oil cooling circuit must be provided.

Thermal rating P_T [kW]

The power that can be transmitted continuously by the gear unit, in given operating conditions, relevant to the max. permissible temperatures for the gear unit.
See chapter: Thermal rating.

Input speed n_1 [rpm]

The catalogue gives three input speed values to cover the majority of applications in the industrial sector.

2. 技术说明

减速比 i_{eff}

表示齿轮装置输入和输出速度之间的比率。
除给定比率之外，YIY 毅源传动系列产品的模型化还可以使用其他比率：
有关其他比率的可用性，请咨询 YIY 毅源传动。

输出力矩 T_2 [Nm]

齿轮装置输出力矩指运转 10,000 小时，根据 I.S.O. (D.P. 6336) 计算得出。
根据不同的输入速度，该值（应用系数为 1）被赋予直线和直角式齿轮装置。

最大力矩 T_{2max} [Nm]

作为峰值或短期内达到的最大容许输出力矩。
另外，由于传动涉及大量的启动或反转，因此必须根据齿轮或轴的耐疲劳性适当限制最大工作力矩。

额定力矩 T_N [Nm]

表示齿轮装置尺寸特点的常规力矩。
根据各尺寸最高比率的 I.S.O. (P.D. 6336)，额定力矩是指力矩极限。

额定功率 P_2 [kW]

在齿轮装置的相关输出速度下持续工作 10,000 小时的力矩值组合。
对于直角齿轮装置，上述值指的是一般输入型式。
在考虑到的应用中，当额定功率值超过相关齿轮装置热额定值时，必须使用专用辅助油冷电路。

热额定值 P_T [kW]

在温度不高于齿轮装置最高容许温度的给定运行条件下，齿轮装置可以持续不断地传输动力。请参阅 “热额定值” 章节。

输入速度 n_1 [rpm]

目录给出了三个输入速度值，涵盖了工业部门中的大多数应用。

Application factor K_A

The application factor is defined by the type of prime mover and the type of machine driven by the gear unit. This is an empirical value fixed by the standards through the historic experience of the various applications and takes into account the variations of load, transmission impacts and uncertainty relative to the variation of parameters involved in the transmission of power.

The importance of the machine driven is essential in identifying the Ka factor, since the motors used in combination with the gear units are normally electric or hydraulic and therefore classed as uniform drive motorizations.

It must be multiplied by the nominal operating torque (or power) in order to obtain the reference torque (or power) to be compared with the catalogue value.

With prime movers different from those indicated or in the event durations other than the foreseen 10,000 hours are to be calculated, please consult the YIY Riduttori technical commercial assistance service.

The following table gives several application factor values.

应用系数 K_A

应用系数由原动机类型和齿轮装置从动机类型确定。这是一个凭借各种应用的历史经验由各种标准确定的经验值，考虑了负载变化、传输冲力以及动力传输中所涉及参数变化相关的不确定性。

在确定 Ka 系数时从动机是一个至关重要的因素，因为与齿轮装置结合使用的发动机通常为电动或液压发动机，因此统一分类为机械化传动。

为获得参考力矩（或功率）与目录值进行比较，额定工作力矩（或功率）必须乘以应用系数。

如果原动机与标示机器不同，或者要计算的工作时间不是预期的 10,000 小时，请咨询 YIY Riduttori技术商务支持服务部。

下表列出了若干应用系数值。

DRIVEN MACHINE	K_A
Agitators/Mixer	
Pure liquids	**1**
Liquid and solids	**1.25**
Liquid- variable density	**1.25**
Clay working machine	
Brick press	**1.75**
Briquette machine	**1.75**
Compactors	**2**
Conveyors-general pourpose	
Worm conveyor	**1**
Uniformly loaded or fed	**1**
Heavy duty	
Not uniform fed	**1.25**
Reciprocating or shaker	**1.75**
Cranes	
Dry dock	
Main Hoist	**2.5**
AuxiliaryHoist	**2.5**
Boom Hoist	**2.5**
Slewing Drive	**2.5**
Traction Drive	**3**
Container	
Main Hoist	**3**
Boom Hoist	2
Industrial Duty	
Main	**2.5**
Auxiliary	**2.5**
Bridge	**3**
Trolley Travel	**3**
Crusher	
Stone or ore	**1.75**
Dredges	
Cable reel	**1.25**
Conveyors	**1.25**
Cutter head drives	**2**
Screen drives	**1.75**
Stackers	**1.25**
Winches	**1.25**
Elevators	
Bucket	**1.25**
Escalators	**1**
Extruders	
General	**1.5**
Plastics	
Variable speed drive	**1.5**
Fixed speed drive	**1.75**
Rubber	
Continuous screw operation	**1.75**
Intermittent screw operation	**1.75**
Feeders	
Apron	**1.25**
Belt	**1.25**
Screw	**1.25**
Food industry	
Cereal cooker	**1**
Dough mixer	**1.25**
Meat grinders	**1.25**

DRIVEN MACHINE	K_A
Hoists	
Heavy duty	**1.75**
Medium duty	**1.25**
Skip hoist	**1.25**
Laundry	
Tumblers	**1.25**
Washers	**1.5**
Lumber industry	
Conveyors-burner	**1.25**
Main or heavy duty	**1.5**
Main log	**1.75**
Slab	**1.75**
Transfer	**1.25**
Debarking drums	**1.75**
Planer feed	**1.25**
Transfers -chain	**1.5**
Metal mills	
Reversing	**2**
Slab pushers	**1.5**
Shears	**2**
Wire drawing	**1.25**
Wire Winding machine	**1.5**
Metal strip processing machinery	
Bridles	**1.25**
Coilers & uncoilers	**1**
Edge trimmers	**1.25**
Flatteners	**1.25**
Pinch rolls	**1.25**
Scrap choppers	**1.25**
Shears	**2**
Slitters	**1.25**
Mills. rotary type	
Cement Kilns	**1.5**
Dryers & coolers	**1.5**
Mixer concrete	**1.25**
Paper mills	
Agitator (mixer)	**1.5**
Agitator for pure liquors	**1.25**
Calender	**1.25**
Chipper	**2**
Chip feeder	**1.5**
Coating rolls	**1.25**
Conveyor	
Chip. bark. chemical	**1.25**
Log (including slab)	**2**
Dryers	
Paper machine	**1.25**
Conveyor type	**1.5**
Extruder	**1.5**
Screen	
Chip	**1.5**
Rotary	**1.5**
Vibrating	**2**
Size press	**1.25**
Super calender	**1.25**
Thickener (AC motor)	**1.5**
(DC motor)	**1.25**
Washer (AC motor)	**1.5**
(DC motor)	**1.25**
Plastic industry	
Batch mixers	**1.75**
Continuous mixers	**1.5**
Calenders	**1.5**

DRIVEN MACHINE	K_A
Rubber industry	
Batch mixers	**1.75**
Continuous mixers	**1.5**
Calenders	**1.5**
Sand muller	**1.25**
Sewage disposal equipment	
Bar screens	**1.25**
Chemical feeders	**1.25**
Dewatering screens	**1.5**
Scum breakers	**1.5**
Slow or rapid mixers	**1.5**
Sludge collectors	**1.25**
Thickeners	**1.5**
Vacuum filters	**1.5**
Screens	
Air washing	**1**
Rotary-stone or gravel	**1.25**
Sugar industry	
Beet slicer	**2**
Cane knives	**1.5**
Crushers	**1.5**
Mills (low speed end)	**1.75**
Textile industry	
Batchers	**1.25**
Calenders	**1.25**
Dryers	**1.25**

从动机	K_A
搅拌器 / 混合器	
纯净液体	1
液体和固体	1.25
液体？ 可变密度	1.25
粘土加工机	
制砖机	1.75
压坯机	1.75
压实机	2
通用输送机	
螺旋输送机	1
负载或进料均匀	1
重载	
进料不均匀	1.25
往复式发动机或振动器	1.75
起重机	
干船坞	
主起重机	2.5
辅助起重机	2.5
臂式吊车	2.5
快速定向传动	2.5
牵引传动	3
集装箱	
主起重机	3
臂式吊车	2
工业负载	
主	2.5
辅助	2.5
桥梁	3
电车行驶	3
压碎机	
石头或矿石	1.75
挖土机	
电缆卷车	1.25
输送机	1.25
铣轮齿轮装置	2
筛选齿轮装置	1.75
堆积机	1.25
卷扬机	1.25
电梯	
铲斗	1.25
升降梯	1
挤压机	
常规	1.5
塑料	
变速传动	1.5
定速传动	1.75
橡胶	
连续式螺旋运转	1.75
间歇式螺旋运转	1.75
进料器	
挡板	1.25
皮带	1.25
螺旋	1.25
食品工业	
谷类炊具	1
和面机	1.25
绞肉机	1.25
起重机	
重载	1.75
中型负载	1.25
倒卸式起重机	1.25

从动机	K_A
洗衣房	
滚筒	1.25
洗衣机	1.5
木材工业	
输送机 - 燃烧器	1.25
主要负载或重载	1.5
主要原木	1.75
板材	1.75
传送	1.25
剥皮滚筒	1.75
刨床供料	1.25
传送链	1.5
金属加工厂	
逆转	2
初轧板坯推进机	1.5
起重三角架	2
拔丝	1.25
绕线机	1.5
金属条加工机械	
制动器	1.25
绕线机和开卷机	1
修边机	1.25
压延机	1.25
夹送辊	1.25
碎边剪切机	1.25
起重三角架	2
切纸机	1.25
加工厂。旋转类型	
水泥窑	1.5
干燥器和冷却器	1.5
混凝土搅拌器	1.25
造纸厂	
搅拌器 （混合器）	1.5
纯净液体搅拌器	1.25
研光机	1.25
切片机	2
进料器	1.5
涂料辊	1.25
输送机	
碎片、树皮、化学制品	1.25
原木 （包括板材）	2
干燥器	
造纸机	1.25
传输机类型	1.5
挤压机	1.5
筛选	
碎片	1.5
旋转	1.5
振动	2
施胶机	1.25
超级研光机	1.25
浓缩器 （交流电动机）	1.5
（直流电动机）	1.25
洗衣机 （交流电动机）	1.5
（直流电动机）	1.25
塑料工业	
分批混合器	1.75
连续式混合器	1.5
研光机	1.5

从动机	K_A
橡胶工业	
分批混合器	1.75
连续式混合器	1.5
研光机	1.5
摆轮式混砂机	1.25
污水处理设备	
格栅除污机	1.25
化学进料器	1.25
沥水筛	1.5
浮渣轧碎机	1.5
慢速或快速混合器	1.5
集泥器	1.25
浓缩器	1.5
真空过滤器	1.5
筛子	
空气洗涤	1
回转碎石或粗砂	1.25
制糖工业	
甜菜切丝机	2
甘蔗割刀	1.5
轧碎机	1.5
工厂 （低速端）	1.75
纺织工业	
混凝土材料计量器	1.25
压延机	1.25
干燥器	1.25

Cs factor

This factor considers the number of starts in the unit of time.

Cs 系数

此系数指单位时间内的启动次数。

	Starts per hour / 每小时启动次数			
	1-5	6-25	26-100	101-200
Cs	**1**	**1.05**	**1.15**	**1.25**

Temperature [°C]

The ideal operating temperature is between 50 °C and 70 °C. For short periods 80 °C can be reached. The best system for keeping the temperature under control is to use an auxiliary cooling system.
For very low ambient temperatures, below –15 °C, or operating temperatures above 80 °C, the use of suitable oils together with special seals and materials (supplied by request) is required. In any case it is advisable to consult the YIY technical commercial service.
See chapter: Lubrication.

温度 [°C]

理想的工作温度在 50 度至 70 度之间。短时间内可到达 80 度。为保持系统在可控制温度以下的最佳状态，应使用辅助冷却系统。
对于环境温度在-15 度以下或工作温度在80 度以上，专用密封件和材料 （按要求供应）必须配合使用合适的油。在任何情况下，最好是咨询 YIY 技术商务服务部。
请参阅 “润滑”章节。

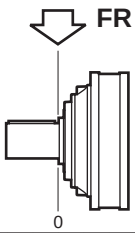
Loads on output / input shafts FR [N]

The catalogue gives the diagrams of permissible FR radial loads on the output shafts referred $n_2 \times h = 10^5$ of bearings.
For different durations, the loads must be multiplied by the coefficient C (obtained from diagram 2) which must not exceed the value of 1.5 regardless of the life.

输出 / 输入轴的负载 FR [N]

参考轴承的使用寿命 $n_2 \times h = 10^5$，目录提供了输出轴容许的 FR 径向负载图。
对于不同的工作时间，负载必须乘以系数 C （从图 2 获得）；无论使用寿命是多少，系数 C 都不得超过 1.5。

Example:
例：
示例:



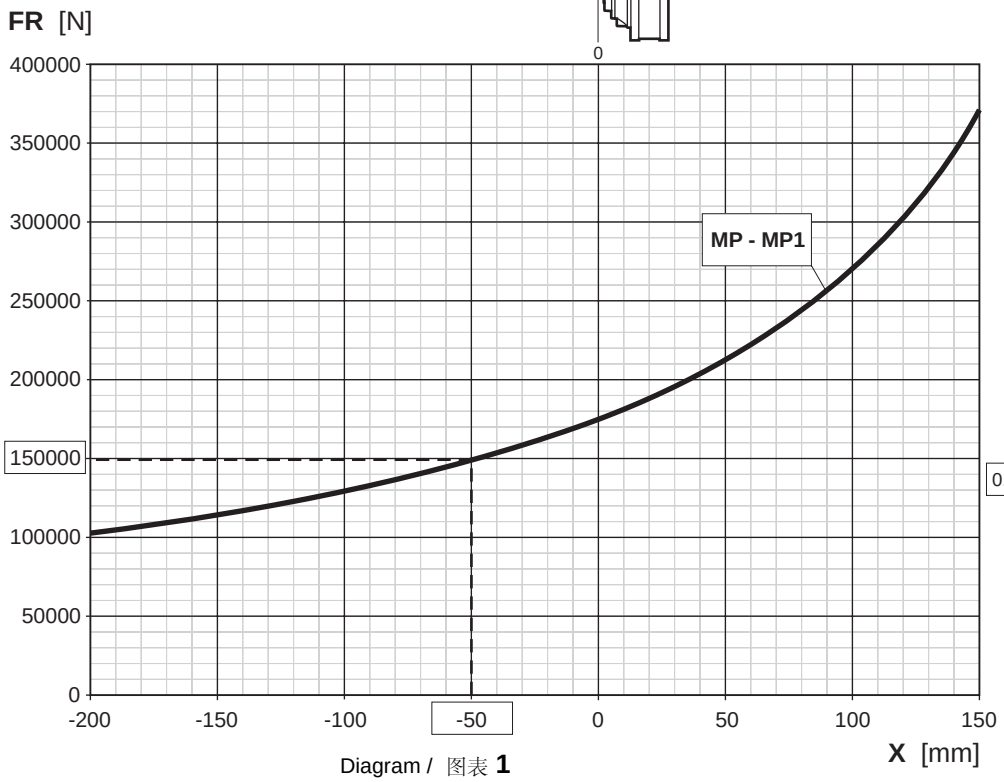


Diagram / 图表 **1**

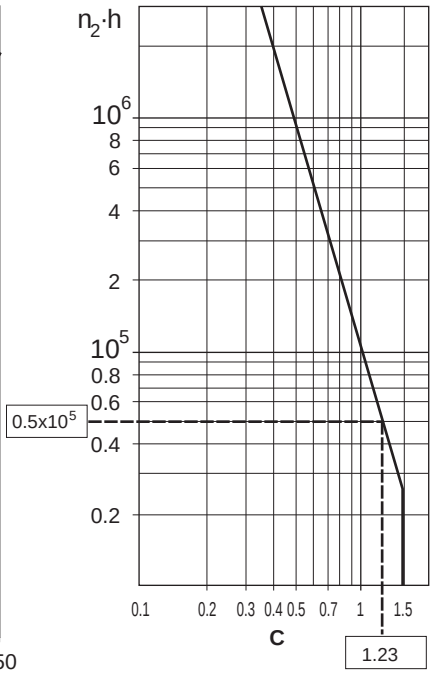


Diagram / 图表 **2**

Data:

Gear unit size
SL3003 MP

Radial load F = 185000 N
Load position X = - 50 mm
Output speed n_2 = 20 rpm

To be calculated:

Radial load capacity
FR = 150000 N (as per diagram 1)

$$c = \frac{F}{FR} = 1{,}23$$

1.23 < 1.5 (C max)
Bearing life $n_2 . h = 0.5 . 10^5$
(as per diagram 2)

$$h = \frac{0{,}5 \cdot 10^5}{20} = 2500 \text{ hours}$$

In the event of axial load, it is advisable to contact the YIY technical commercial service.
For input shafts, see the respective tables.
Gear units with female shaft output are used for the transmission of torque only, and are unsuitable for supporting any radial load.
For information contact the YIY technical commercial service.

Thermal rating P_T (kW)

The thermal ratings of the gear units are given in the tables summarizing the technical performance of the various reduction stages.
The values given refer to a continuous use of the gear unit:

- With splash lubrication
- Horizontally mounted
- At a gear unit input speed of 1500 rpm
- For a max. oil temperature of 80 °C (oil VG150)
- At an ambient temperature of 20°C
- In the “large ambient" condition of use.

K Factor

With work cycles requiring an intermittent use of the gear unit and/or the presence of an ambient temperature different from 20 °C, the gear unit thermal rating can be adjusted to the specific application by means of the K factor.

数据：

齿轮装置尺寸 SL3003 MP
径向负载 F = 185000 N
负载位置 X = - 50 mm
输出速度 n_2 = 20 rpm

要计算的结果：

径向负载容量
FR = 150000 N （按图 1 计算）

$$c = \frac{F}{FR} = 1{,}23$$

1.23 < 1.5 （系数 C 最大值）
轴承使用寿命 $n_2 . h = 0.5 .10^5$
（按图 2 计算）

$$h = \frac{0{,}5 \cdot 10^5}{20} = 2500 \text{ 小时}$$

如果为轴向负载，建议与 YIY 技术商务服务部联系。
关于输入轴的信息，请参阅各自的表格。
带有凹轴输出的齿轮装置仅用于力矩传输，不适合支持任何径向负载。
有关信息，请与 YIY 技术商务服务部联系。

热额定值 P_T (kW)

表中给出了齿轮装置的热额定值，概述了各减速阶段的技术性能。
给定值指连续使用齿轮装置：

- 采用飞溅润滑法
- 水平安装
- 齿轮装置输入速度 1500 rpm
- 最高油温为 80 度（润滑油 VG150）
- 环境温度为 20度
- 在 “大环境”条件下使用。

K 系数

由于工作周期需要间歇式使用齿轮装置和 / 或环境温度不是 20 度，通过 K 系数可以将齿轮装置的热额定值调整为特定值。

K

Hours of work per day 每天的工作时间	Ambient temperature [°C] / 环境温度 [°C]				
	10°	20°	30°	40°	50°
≥10	**1.15**	**1**	**0.85**	**0.7**	**0.6**
8	**1.25**	**1.1**	**1**	**0.85**	**0.7**
6	**1.4**	**1.25**	**1.1**	**1**	**0.85**
4	**1.6**	**1.4**	**1.25**	**1.1**	**1**
2	**1.8**	**1.6**	**1.4**	**1.25**	**1.1**

S Factor

If the input speed is different from 1500 rpm, the thermal rating can be adjusted to the specific situation by means of the S factor

S 系数

如果输入速度不是 1500 rpm，可以通过 S 系数将热额定值调整为特定值。

	n_1 [rpm]			
	1750	1500	1000	500
S	**0.94**	**1**	**1.05**	**1.1**

R Factor

If the gear unit is located in a confined space or outdoors, the thermal rating can be modified with the aid of the R factor

R 系数

如果齿轮装置位于限定的空间内或户外，热额定值可以利用 R 系数修改。

	Small space 小空间	Large space 大空间	Outdoors 户外
R	**0.70**	**1.00**	**1.35**

In the most general case the adequate thermal rating of the gear unit will be:

在最常见的情况下，齿轮装置的适当热额定值为：

$$P_{T1} = P_T \cdot K \cdot S \cdot R$$

The thermal rating must be higher than the power to be transmitted in all operating cycle conditions.
If the thermal rating of the gear unit is less than the power to be transmitted, even in just one condition of the possible operating cycle, an auxiliary cooling circuit must be provided.
For selecting the circuits, see the Chapter: Lubrication.

热额定值必须高于在全部工作循环条件下要传送的功率。
如果齿轮装置的热额定值小于要传送的功率，即使在可能的工作循环条件下，还必须提供辅助冷却电路。
有关选择电路的信息，请参阅 “润滑”章节。

3. EXAMPLE SELECTING GEAR UNIT

Selection data

Prime mover :

Electric 22 kW a 1500 rpm

Machine driven :
conveyor belt not uniformly fed
Duty: continuous 10 hours a day
Number of starts per hour : 1
Required operating torque : 100000 Nm
Max. torque on start: 200000 Nm
Rotation speed: 1.9 rpm
Required transmission life: 10000 h
Operating position: horizontal
Ambient temperature: 30°C
Working site large space

Gear unit selection

Ratio required: 1500 / 1.9 = 789
Application factor K_A: 1.25
Torque for gear unit selection:
$T_2 = 100000 \times K_A \times C_S = 100000 \times 1.25 \times 1 = 125000$ Nm

The gear unit to be selected must have a $T_2 > T_{2R}$ reference torque for gear unit selection.

3. 齿轮装置选择示例

数据选择

原动机：

电能 22 kW，转速 1500 rpm

从动机
传送带没有均匀进料
负载：每天连续工作 10 个小时
每小时启动次数：1
需要的工作力矩：100000 Nm
启动的最大力矩：200000 Nm
转速：1.9 rpm
所需传输寿命：10000 h
工作位置：水平
环境温度：30 癈
工作区 大空间

齿轮装置选择

所需比率：1500 / 1.9 = 789
应用系数 K_A1.25
齿轮装置力矩的选择：
$T_2 = 100000 \times K_A \times C_S = 100000 \times 1.25 \times 1 = 125000$ Nm

要选择的齿轮装置必须有一个 $T_2 > T_{2R}$ 参考力矩供齿轮装置选择。

Then go to page 15, from the table choose in column T_N the value immediately higher than the value obtained (T_{2R}=125000), that is 133000 Nm; in the same line of the "Type" column you can read that the right gearbox is size S1200; from the corresponding page 56 in the table "Technical data" choose the "i_{eff}" value that is nearest to the requested i=789: this i_{eff} will be 778.1.
Then from the column corresponding to 1500 rpm, in correspondence to the selected ratio, you will read T_2=133173 Nm: therefore the correct gearbox will have a "SL12004" configuration.

Max. torque of gear unit SL12004

T_{2max} = 250000 Nm > 200000 Nm

Thermal capacity of gear unit SL12004

P_T = 31 kW

Due to the ambient temperature the K factor must be considered, therefore the thermal capacity of the gear unit becomes:

P_{T1} = 31 x 0.85 = 26.35 kW

As the input speed is equal to 1500 rpm the S factor = 1

Power required by the application : 100000 x 1.9 / 9550 = 20 kW

As 26.35 kW > 20 kW no gear unit auxiliary cooling system is required.

Applications that

- require duration values different from 10,000 h,
- have different input speeds from those given in the catalogue
- are characterized by work cycles with variable speeds and loads
- foresee the presence of axial loads on the gear unit input / output shaft

must be examined separately, with the aid of dedicated calculation programs, available from the YIY Riduttori sales organization.

然后，转到第 15 页，从表格的 T_N 列中选择比已获取值高的值 (T_{2R}=125000)，即 133000 Nm；在"类型"列的同一行您可以看到右侧齿轮箱的尺寸为 S1200；从"技术数据"表中相应的第 56 页选择"i_{eff}"值，该值近似于 i=789：该 i_{eff} 将为 778.1。
然后，在 1500 rpm 相对应的列中，您将看到与选定比率相对的 T_2=133173 Nm: 因此，正确的齿轮箱会有一个"SL12004"配置。

齿轮装置 SL12004 的最大力矩

T_{2max} = 250000 Nm > 200000 Nm

齿轮装置的热容量 SL12004

P_T = 31 kW

由于环境温度，必须考虑 K 系数，因此齿轮装置的热容量变成：

P_{T1} = 31 x 0.85 = 26.35 kW

由于输入速度为 1500 rpm，S 系数 = 1

应用所需的功率: 100000 x 1.9 / 9550 = 20 kW

由于 26.35 kW > 20 kW, 因此齿轮装置不需要辅助冷却系统。

应用的条件

工作时间值不是10,000小时，
输入速度与目录中给定的值不同

特点是工作周期的速度和负载可变

预测在齿轮装置的输入/输出轴上将出现轴向负载

必须利用 YIY Riduttori销售机构提供的专用计算程序分别进行检查。

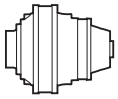
4. TECHNICAL DATA AND DIMENSIONAL DRAWINGS

4. 技术数据和尺寸图

> S Series / S 系列

Type / 型号	T_N [Nm]	Page 页
S300	34000	16
S400	48000	26
S600	64000	36
S850	90000	46
S1200	133000	56
S1800	190000	62
S2500	260000	68
S3500	370000	74

S300

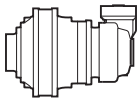


10000 HOURS LIFE

i_{eff}	n_1 [rpm] 1500 n_2 [rpm]	1500 T_2 [Nm]	1500 P_2 [kW]	1000 n_2 [rpm]	1000 T_2 [Nm]	1000 P_2 [kW]	500 n_2 [rpm]	500 T_2 [Nm]	500 P_2 [kW]	T_{2MAX} [Nm]	P_T [kW]
SL3001											
4.04				248	16362	424	124	20143	261	76000	
4.50				222	16609	387	111	20448	238	74000	
5.12		*		195	17067	349	98	21011	215	59000	
6.00				167	17528	306	83	20709	181	54000	
7.36				136	13696	195	68	14291	102	36000	
SL3002											
15.96	94	21760	214	63	24574	161	31.3	30255	99	76000	
17.86	84	22471	198	56	25378	149	28.0	31244	92	76000	
19.89	75	22969	181	50	25940	137	25.1	31224	82	74000	
22.77	66	23920	165	43.9	27014	124	22.0	31484	72	74000	
24.24	62	23751	154	41.3	26823	116	20.6	32776	71	76000	38
27.00	56	25174	146	37.0	28430	110	18.5	31814	62	74000	
30.72	48.8	23601	121	32.6	24195	82	16.3	25246	43.0	59000	
33.75	44.4	25273	118	29.6	25910	80	14.8	27035	41.9	58500	
38.40	39.1	23926	98	26.0	24529	67	13.0	25594	34.9	59000	
45.00	33.3	21906	76	22.2	22458	52	11.1	23433	27.3	54000	
SL3003											
55.85	26.9	31687	89	17.9	33061	62	9.0	34559	32.4	76000	
62.50	24.0	32472	82	16.0	33290	56	8.0	35151	29.4	76000	
71.55	21.0	32743	72	14.0	33568	49.1	7.0	35878	26.3	76000	
79.79	18.8	32963	65	12.5	33793	44.4	6.3	36474	23.9	76000	
93.57	16.0	33286	56	10.7	34125	38.2	5.3	37364	20.9	76000	25
105.0	14.3	33522	50	9.5	34366	34.3	4.8	38019	19.0	76000	
107.1	14.0	33564	49.2	9.3	34409	33.6	4.7	38137	18.6	76000	
122.7	12.2	33844	43.3	8.2	35051	29.9	4.1	38925	16.6	76000	
145.4	10.3	34199	36.9	6.9	35966	25.9	3.4	39942	14.4	76000	
162.0	9.3	33196	32.2	6.2	34812	22.5	3.1	38660	12.5	74000	
SL3004											
172.0	8.7	34697	31.7	5.8	36891	22.5	2.9	40969	12.5	76000	
195.5	7.7	35374	28.4	5.1	37611	20.1	2.6	41769	11.2	76000	
230.7	6.5	36271	24.7	4.3	38565	17.5	2.2	42828	9.7	76000	
261.3	5.7	36961	22.2	3.8	39299	15.7	1.9	42181	8.5	76000	
288.8	5.2	37524	20.4	3.5	39897	14.5	1.7	44308	8.0	76000	
330.0	4.5	38289	18.2	3.0	40711	12.9	1.5	45211	7.2	76000	
369.9	4.1	38956	16.5	2.7	41420	11.7	1.4	45999	6.5	76000	
414.6	3.6	39634	15.0	2.4	42141	10.6	1.2	46799	5.9	76000	
463.9	3.2	40314	13.7	2.2	42864	9.7	1.1	47602	5.4	76000	
518.7	2.9	41001	12.4	1.9	43594	8.8	0.96	48413	4.9	76000	
578.5	2.6	41682	11.3	1.7	44319	8.0	0.86	49218	4.5	76000	
647.3	2.3	42397	10.3	1.5	45079	7.3	0.77	50062	4.0	76000	17
741.0	2.0	43273	9.2	1.3	46010	6.5	0.67	51096	3.6	76000	
776.8	1.9	43583	8.8	1.3	46339	6.2	0.64	51462	3.5	76000	
889.2	1.7	44483	7.9	1.1	47297	5.6	0.56	52525	3.1	76000	
990.5	1.5	43056	6.8	1.0	45779	4.8	0.50	50839	2.7	74000	
1175	1.3	44180	5.9	0.85	46974	4.2	0.43	52166	2.3	74000	
1205	1.2	34413	4.5	0.83	36438	3.2	0.41	40465	1.8	59000	
1392	1.1	35170	4.0	0.72	37239	2.8	0.36	41356	1.6	59000	
1670	0.90	36154	3.4	0.60	38281	2.4	0.30	42512	1.3	59000	
1733	0.87	21604	2.0	0.58	22970	1.4	0.29	25509	0.8	36000	
1958	0.77	32996	2.6	0.51	35083	1.9	0.26	38961	1.0	54000	
2401	0.62	22696	1.5	0.42	24132	1.1	0.21	26799	0.6	36000	

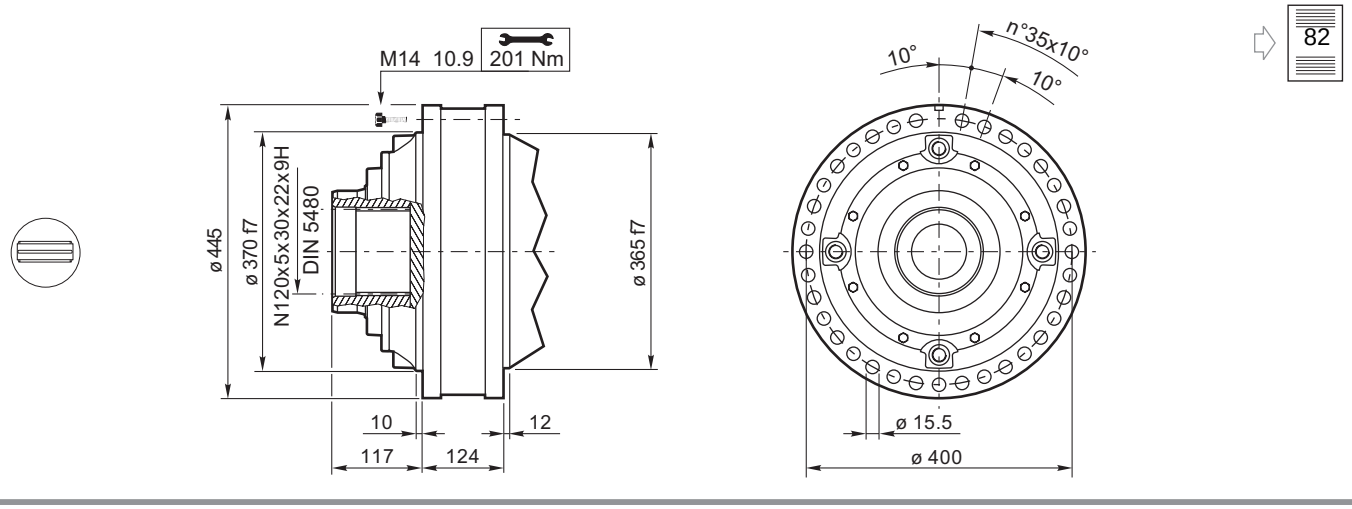
(*)Please consult YIY

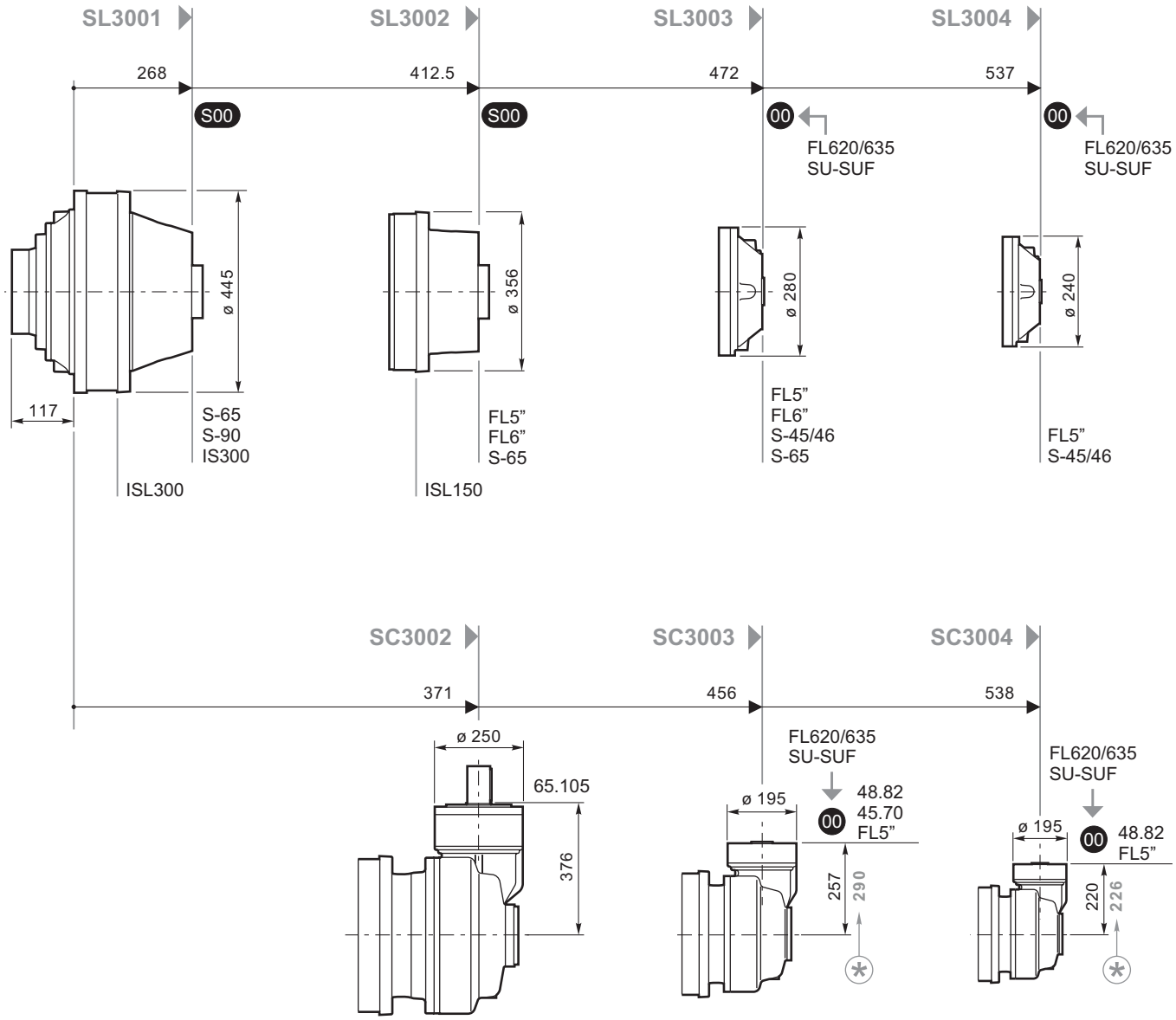
请咨询 YIY 公司



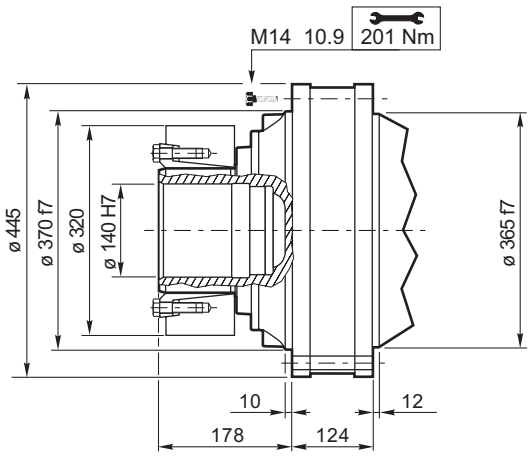
i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SC3002											
10.26	146	8369	128	97	9452	96	48.7	11637	59	50300	
11.43	131	9322	128	87	10528	96	43.7	12962	59	56000	
13.01	115	10607	128	77	11979	96	38.4	14747	59	59000	
15.24	98	12430	128	66	14037	96	32.8	17282	59	54000	21
17.52	86	15311	137	57	17291	103	28.5	21288	64	54000	
20.52	73	11963	92	48.7	13510	69	24.4	16633	42.4	57600	
21.49	70	14267	104	46.5	14627	71	23.3	15262	37.2	36000	
SC3003											
43.88*	34.2	17101	61	22.8	19313	46.1	11.4	23777	28.4	76000	
49.11*	30.5	19136	61	20.4	21611	46.1	10.2	26606	28.4	76000	
56.22*	26.7	21906	61	17.8	24740	46.1	8.9	30459	28.4	76000	
62.62*	24.0	24401	61	16.0	27557	46.1	8.0	33499	28.0	74000	
74.25*	20.2	28934	61	13.5	32442	45.8	6.7	34357	24.2	74000	
83.33*	18.0	24142	45.5	12.0	24750	31.1	6.0	25825	16.2	76000	18
92.81*	16.2	26891	45.5	10.8	27568	31.1	5.4	28766	16.2	74000	
99.00*	15.2	22992	36.5	10.1	23571	24.9	5.1	24808	13.1	54000	
107.5	14.0	24154	35.3	9.3	26128	25.4	4.7	28192	13.7	59000	
126.0	11.9	23334	29.1	7.9	23922	19.9	4.0	25730	10.7	54000	
134.4	11.2	25838	30.2	7.4	26488	20.6	3.7	29160	11.4	59000	
SC3004											
167.6	9.0	34559	32.4	6.0	36745	23.0	3.0	40806	12.8	76000	
187.5	8.0	35151	29.4	5.3	37375	20.9	2.7	41506	11.6	76000	
207.3	7.2	35689	27.0	4.8	37947	19.2	2.4	42141	10.6	76000	
232.0	6.5	36301	24.6	4.3	38597	17.4	2.2	42864	9.7	76000	
254.5	5.9	36815	22.7	3.9	39143	16.1	2.0	42113	8.7	76000	
287.2	5.2	37494	20.5	3.5	39866	14.5	1.7	44272	8.1	76000	
321.4	4.7	38137	18.6	3.1	40549	13.2	1.6	45032	7.3	76000	
368.0	4.1	38925	16.6	2.7	41387	11.8	1.4	45962	6.5	76000	
412.5*	3.6	39604	15.1	2.4	42109	10.7	1.2	46763	5.9	76000	
472.2*	3.2	40422	13.4	2.1	42979	9.5	1.1	47730	5.3	76000	13
495.0*	3.0	40711	12.9	2.0	43286	9.2	1.0	48071	5.1	76000	
566.7*	2.6	41552	11.5	1.8	44181	8.2	0.88	49064	4.5	76000	
631.2*	2.4	40219	10.0	1.6	42763	7.1	0.79	47489	3.9	74000	
718.1*	2.1	31820	7.0	1.4	33833	4.9	0.70	37573	2.7	59000	
768.2*	2.0	32146	6.6	1.3	34179	4.7	0.65	37799	2.6	59000	
887.0*	1.7	32853	5.8	1.1	34931	4.1	0.56	38631	2.3	59000	
1040*	1.4	29984	4.5	0.96	31880	3.2	0.48	35404	1.8	54000	
1064*	1.4	33772	5.0	0.94	35908	3.5	0.47	39711	2.0	59000	
1247*	1.2	30822	3.9	0.80	32772	2.8	0.40	36394	1.5	54000	
1530*	0.98	21201	2.2	0.65	22542	1.5	0.33	25034	0.86	36000	

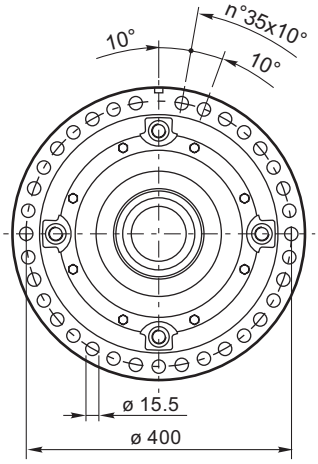
* ⇨ 24





00 91
S00 91
FL620/635 FL5” FL6” SU-SUF S-45/46
S-65 S-90 ISL150 ISL300 IS300
24
65.105 48.82 45.70
25
19
IEC motor
25





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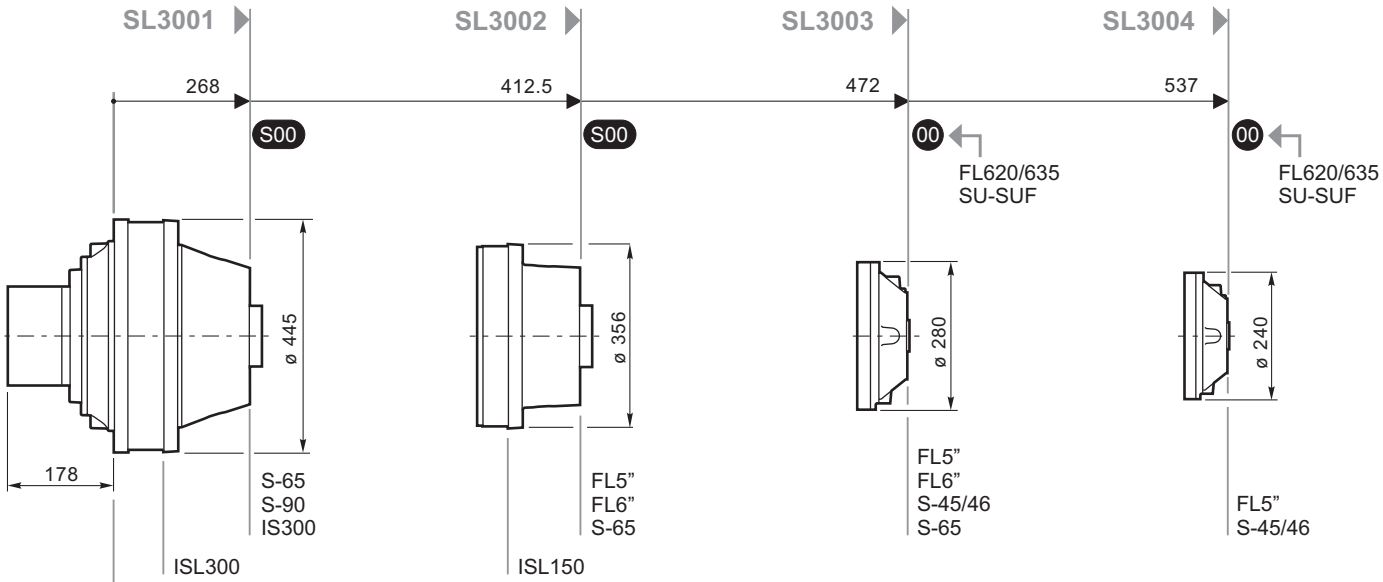
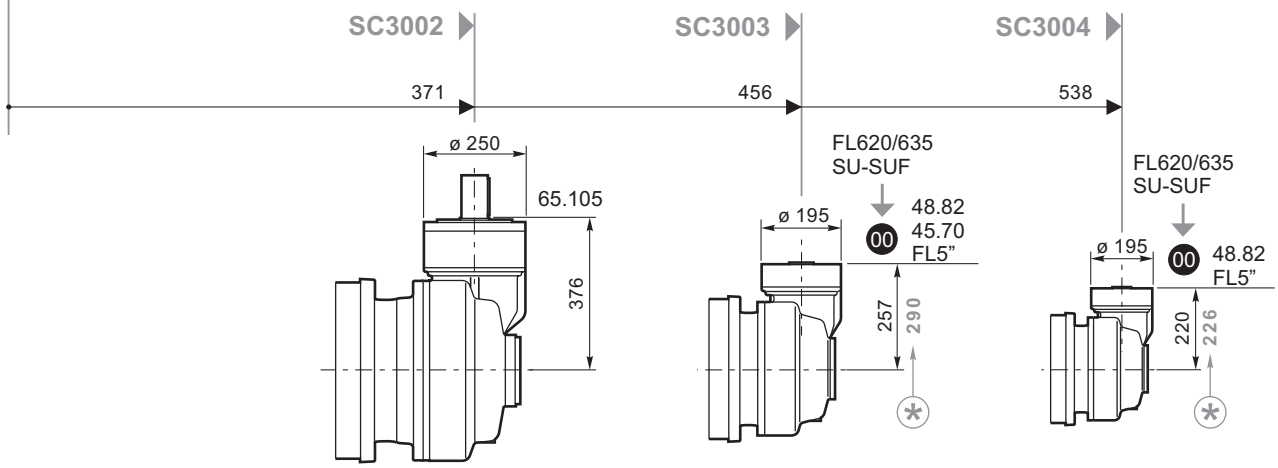
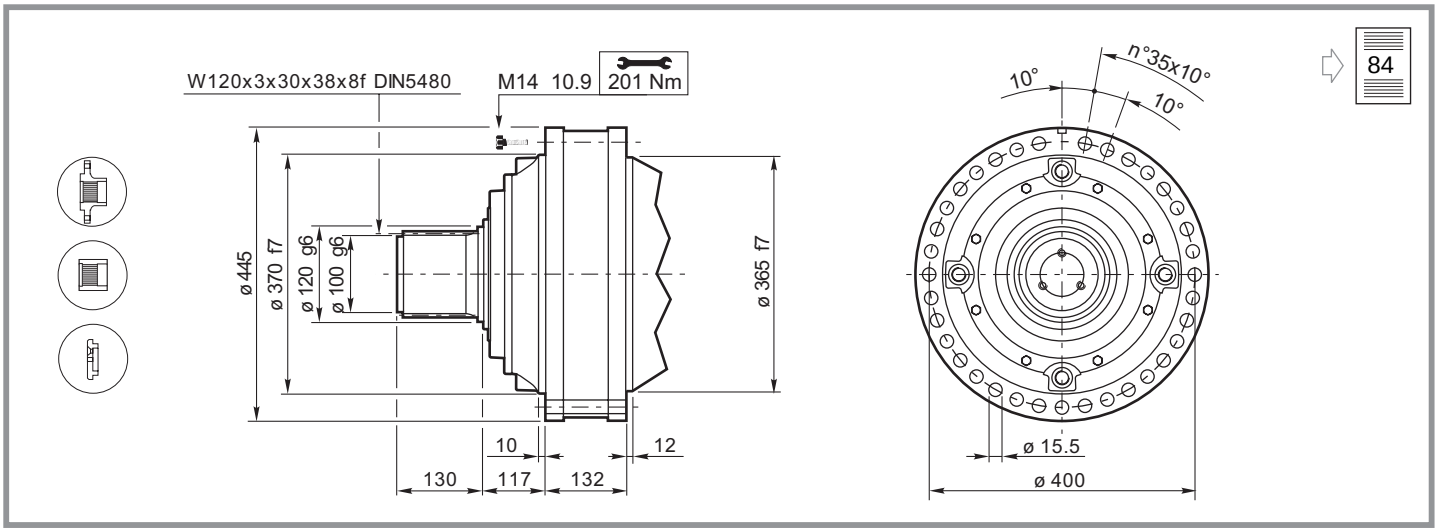
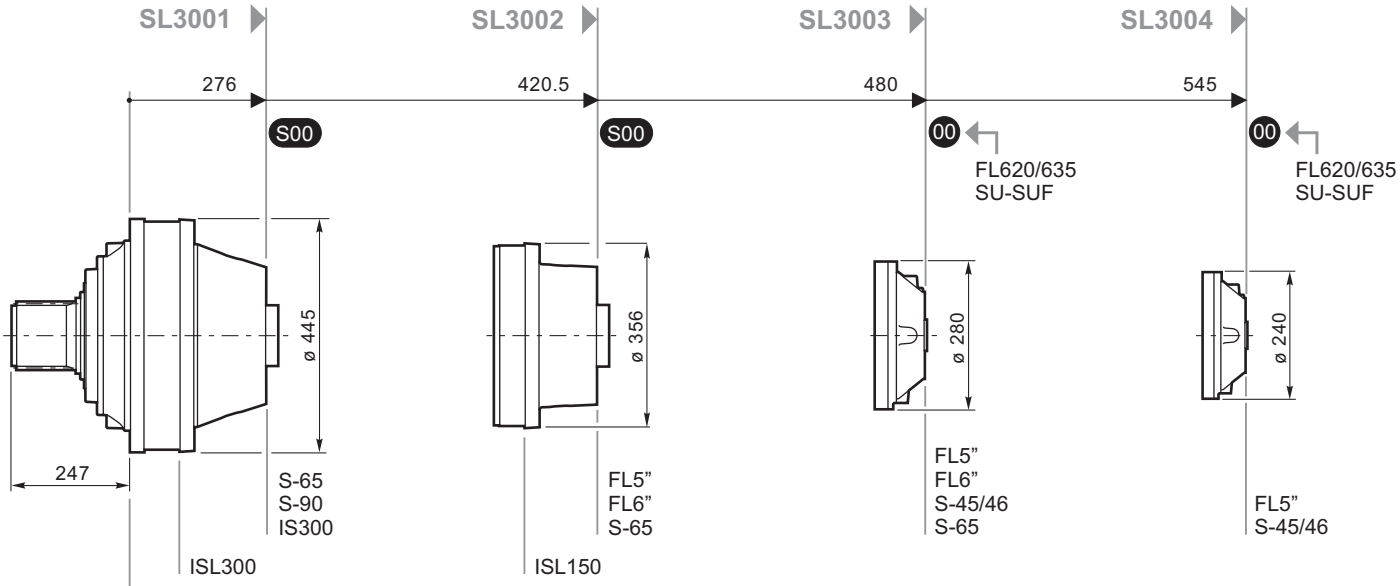
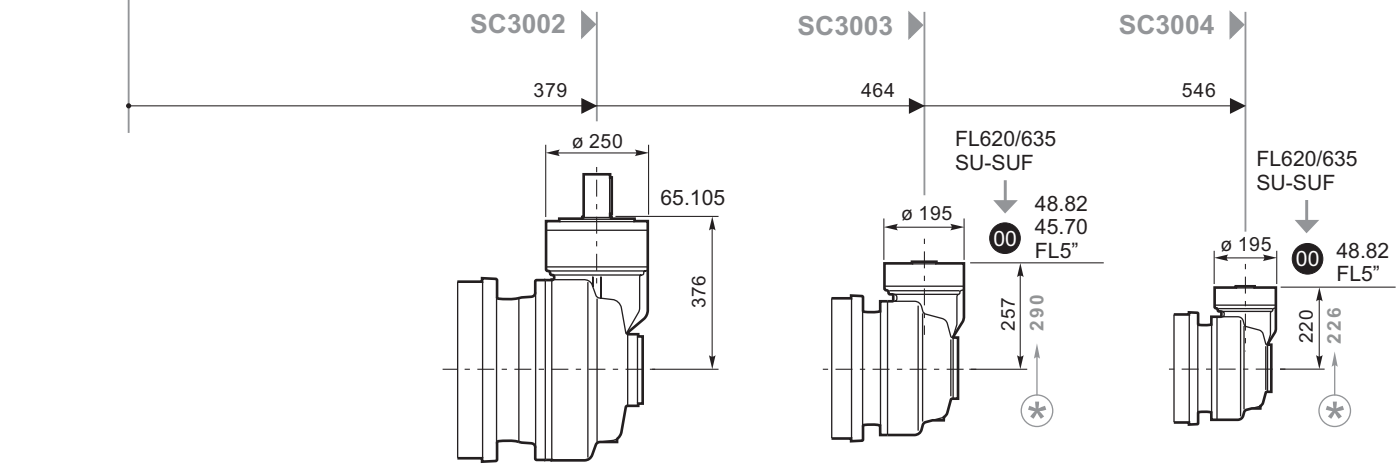




00 91 S00 91 FL620/635 FL5” FL6” SU-SUF S-45/46 S-65 S-90 ISL150 ISL300 IS300 24 65.105 48.82 45.70 25 19 IEC motor 25







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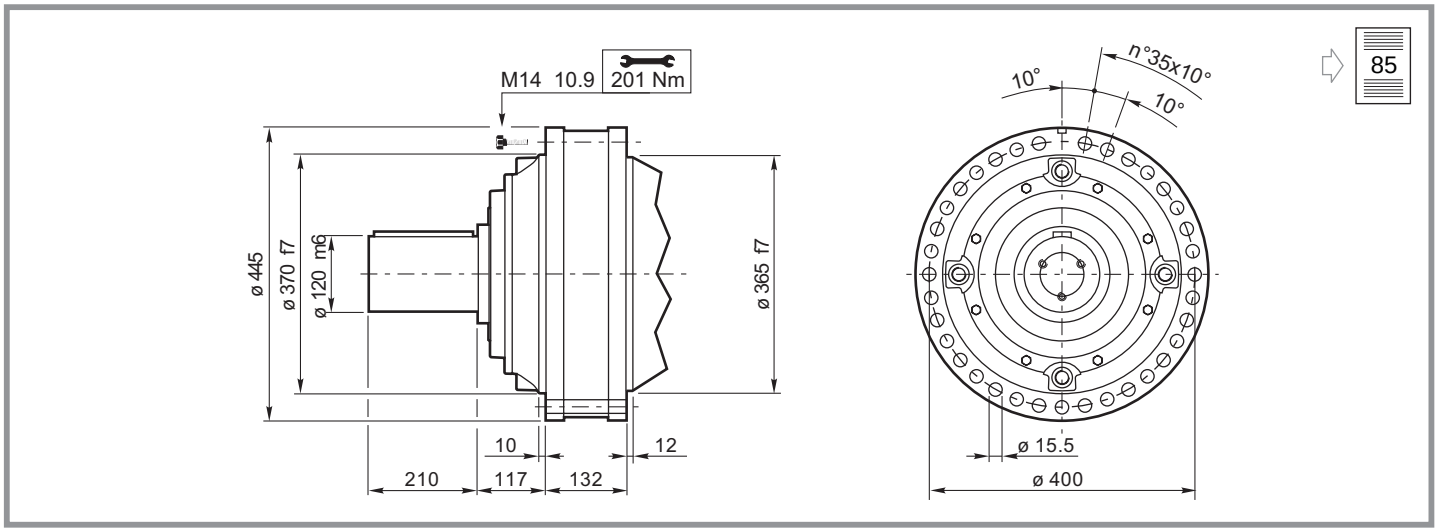
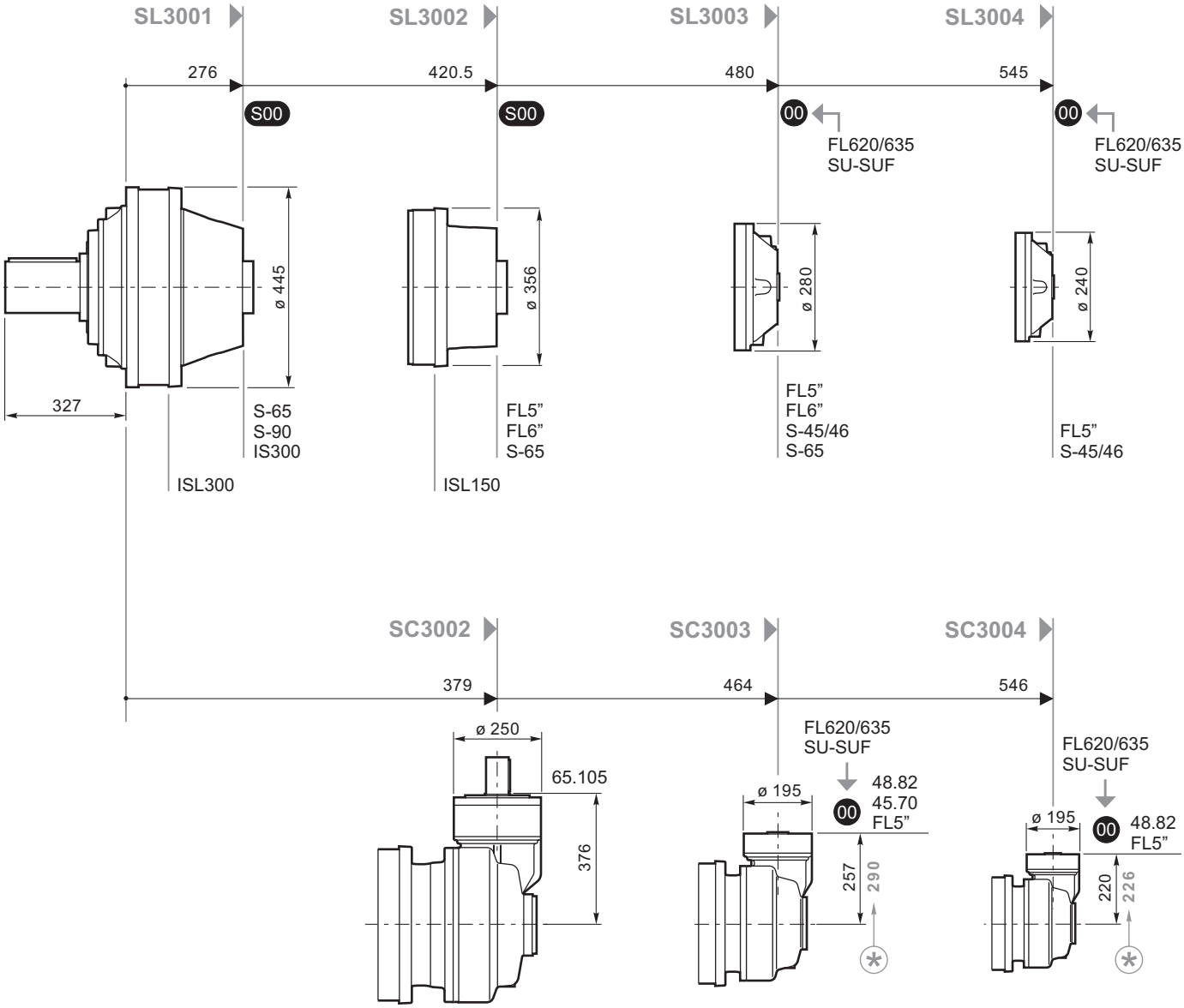
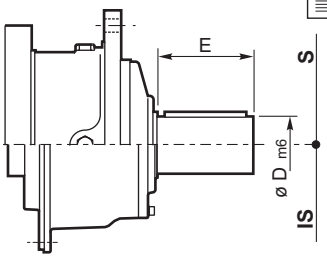




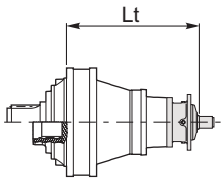
00 91
S00 91
FL620/635 FL5” FL6” SU-SUF S-45/46
S-65 S-90 ISL150 ISL300 IS300
24
65.105 48.82 45.70
25
19
IEC motor
25

S-45/46, S-65, S-90, ISL150, ISL300, IS300

86

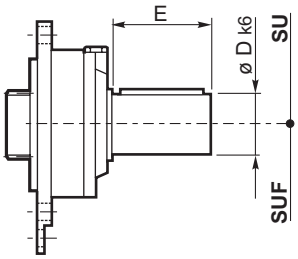


	S-45CR1	S-46C1	S-65CR1	S-90CR1	ISL150	ISL300	IS300
D m6	65	65	80	90	90	90	100
E	105	105	130	170	130	130	210
	Lt (FE - FS)						
SL3001			460.5	466.5	338	338	446
SL3002			604.5		482.5	482.5	
SL3003	600	641	638.5				
SL3004	600	641					
	Lt (MP - MP1)						
SL3001			468.5	474.5		346	454
SL3002			612.5		490.5		
SL3003	608	649	646.5				
SL3004	608	649					

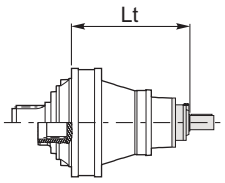


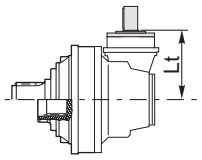
SU-SUF

87



	SU/SUF.1	SU/SUF.2	SU/SUF.3
D k6	28	40	48
E	50	58	82
	Lt (FE - FS)		
SL3003	533	533	533
SL3004	597	597	597
	Lt (MP - MP1)		
SL3003	541	541	541
SL3004	605	605	605
	Lt		
SC3003	317-350*	317-350*	317-350*
SC3004	286-280*	286-280*	286-280*

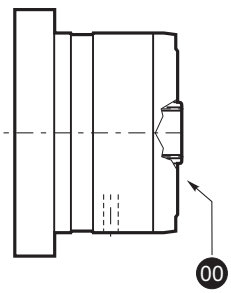




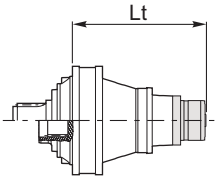
* 19

FL5”, FL6”

89



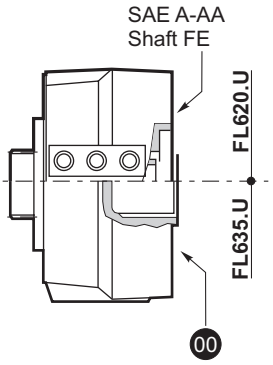
	FL250.4C FL250.6C	FL350.6C FL350.8C	FL450.6C FL450.8C	FL650.10C FL650.12C FL650.14C	FL750.10C FL750.12C FL750.14C	FL960.12C FL960.14C FL960.16C FL960.18C
	Lt (FE - FS)					
SL3002	491.5	491.5	491.5	505	505	519
SL3003	577.5	577.5	577.5	591	591	605
SL3004	630.5	630.5	630.5	644	644	
	Lt (MP - MP1)					
SL3002	499.5	499.5	499.5	513	513	527
SL3003	585.5	585.5	585.5	599	599	613
SL3004	638.5	638.5	638.5	652	652	
	Lt					
SC3003	408.5-441.5*	408.5-441.5*	408.5-441.5*	422-455*	422-455*	
SC3004	377.5-280*	377.5-280*	377.5-280*	391-293.5*	391-293.5*	



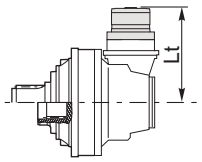
* 19

FL620/635

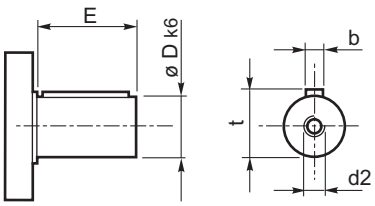
90



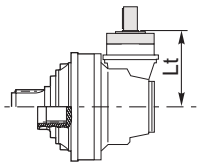
	FL620.U	FL635.U
	Lt (FE - FS)	
SL3003	577.5	564.5
SL3004	641.5	628.5
	Lt (MP - MP1)	
SL3003	585.5	572.5
SL3004	649.5	636.5
	Lt	
SC3003	361.5-394.5*	348.5-381.5
SC3004	330.5-324*	317.5-311.5*



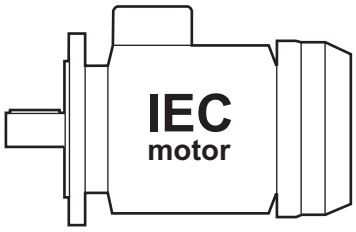
65.105, 48.82, 45.70



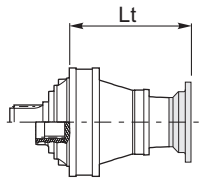
	65.105	48.82	45.70
D k6	65 m6	48	45
E	105	82	70
b	18	14	14
t	69	51.5	48.5
d2	M20x42	M10x22	M10x22
	Lt		
SC3002	376		
SC3003		317	307
SC3004		280	

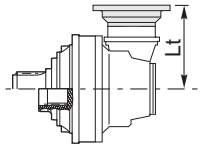


PAM IEC



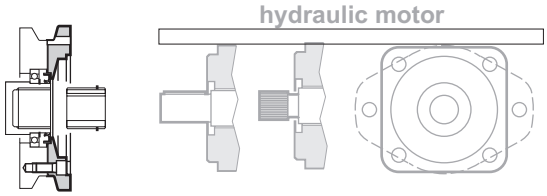
	IEC80-90	IEC100-112	IEC132	IEC160	IEC180	IEC200	IEC225
	Lt (FE - FS)						
SL3002						487.5	517.5
SL3003				579	579	609	639
SL3004	564	565	632	663	663	673	703
	Lt (MP - MP1)						
SL3002						495,5	525,5
SL3003				587	587	617	647
SL3004	572	573	640	671	671	681	711
	Lt						
SC3003			352-365*	383-416*	383-416*	394-427*	424-457*
SC3004	253-247*	254-248*	321-315*	352-346*	352-346*		





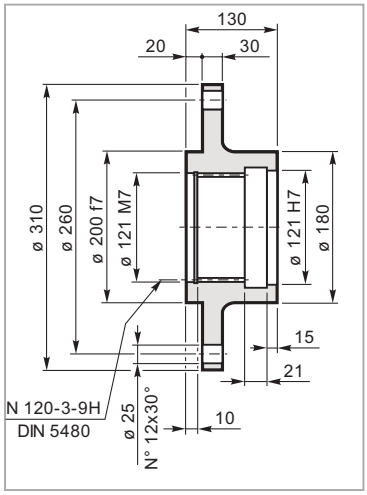
19

SAE J 744C, NEMA Adaptors



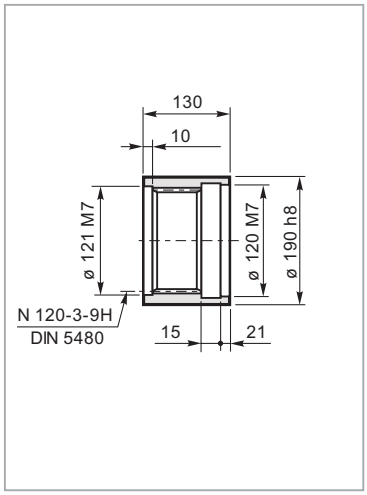
92

FR 400



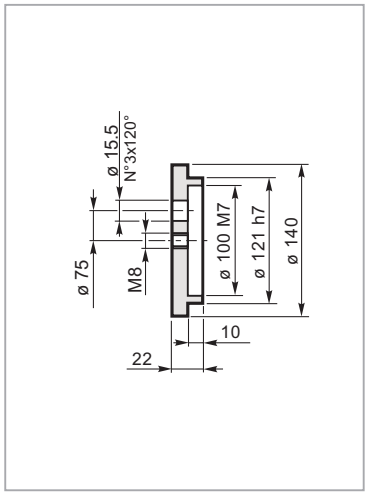
Mat. C40 UNI EN 10083
Code: 34705012800

MS 400



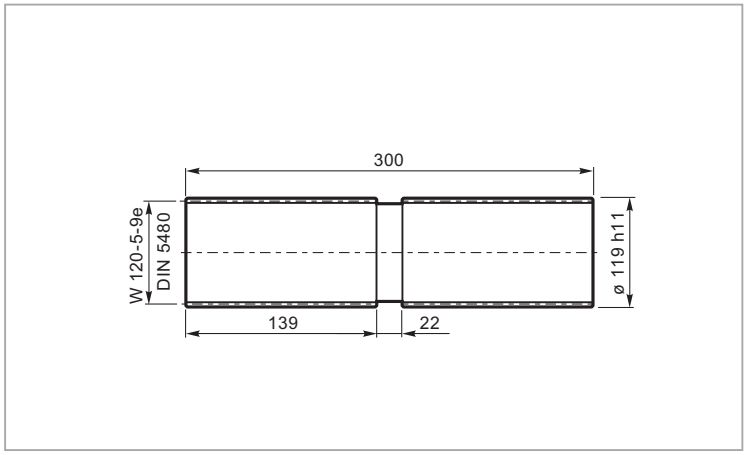
Mat. 39NiCrMo3 UNI EN 10083
Code: 39104730600

RDF S300



Mat. C40 UNI EN 10083
Code: 9001844

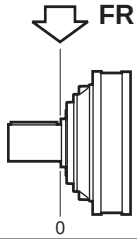
BS 400

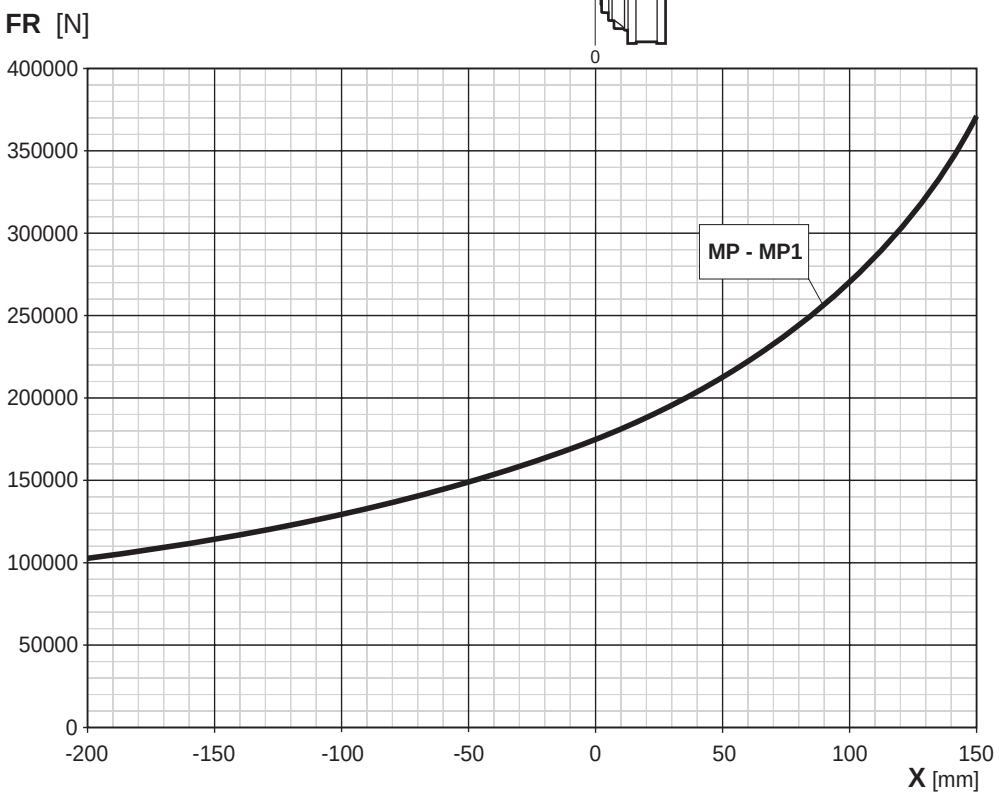


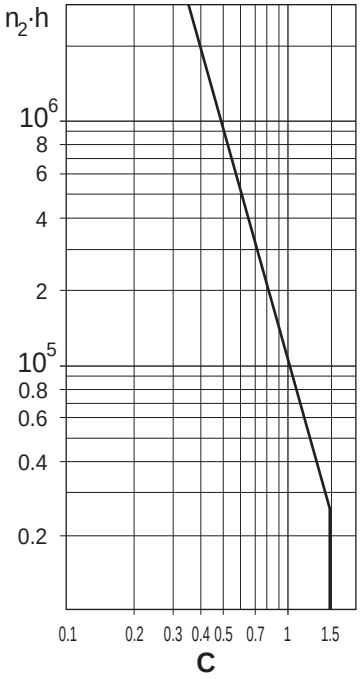
Mat. 39NiCrMo3 UNI EN 10083
Code: 39127430600

Radial loads on output shafts

输出轴径向载荷

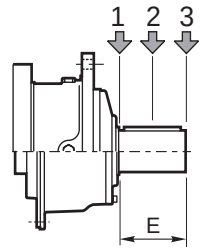




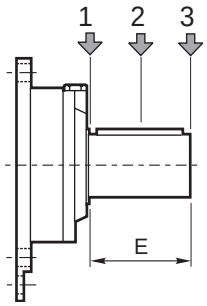


Radial loads on input shafts

输入轴径向载荷

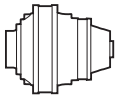


Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
S-45CR1	105	10000	6000	4000	5000	3000	2000
S-46C1	105	14000	8800	6400	7000	4400	3200
S-65CR1	130	23800	15500	9600	11900	7800	4800
S-90CR1	170	29700	17000	10000	14800	8500	5000
ISL150	130	7631	4302	2995	3824	2156	1501
ISL300	130	7631	4302	2995	3824	2156	1501
IS300	210	48814	33068	22914	24465	16573	11484



Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
SU1/SUF1	50	3000	2000	1500	1400	1000	700
SU2/SUF2	58	3000	2000	1500	1400	1000	700
SU3/SUF3	82	3000	1700	1200	1400	800	600

S400



10000 HOURS LIFE

i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SL4001											
4.18				239	21853	547	120	26904	337	84000	
4.89		*		204	22482	481	102	27679	296	84000	
6.00				167	23371	408	83	27275	238	72000	
SL4002											
16.51	91	22514	214	61	25426	161	30.3	31303	99	84000	
18.48	81	23250	198	54	26257	149	27.1	32327	92	84000	
19.32	78	26338	214	52	29745	161	25.9	36620	99	84000	
21.61	69	27199	198	46.3	30717	149	23.1	37779	92	84000	
24.74	61	27621	175	40.4	31194	132	20.2	38094	81	84000	38
29.34	51	28748	154	34.1	32466	116	17.0	38494	69	84000	
30.36	49.4	28164	146	32.9	28873	100	16.5	30127	52	72000	
36.00	41.7	28460	124	27.8	29176	85	13.9	30444	44.3	72000	
45.00	33.3	28852	101	22.2	29579	69	11.1	30864	35.9	72000	
SL4003											
57.79	26.0	32785	89	17.3	37025	67	8.7	45584	41.3	84000	
64.67	23.2	33856	82	15.5	38236	62	7.7	47074	38.1	84000	
67.60	22.2	37876	88	14.8	38830	60	7.4	40517	31.4	84000	
83.64	17.9	38374	72	12.0	39340	49.3	6.0	41049	25.7	84000	
93.59	16.0	38639	65	10.7	39613	44.3	5.3	41345	23.1	84000	25
102.7	14.6	38860	59	9.7	39839	40.6	4.9	41930	21.4	84000	
110.9	13.5	39799	56	9.0	44946	42.5	4.5	51108	24.1	84000	
126.9	11.8	40416	50	7.9	45644	37.7	3.9	52164	21.5	84000	
146.7	10.2	39720	42.5	6.8	40720	29.1	3.4	44254	15.8	84000	
159.1	9.4	31176	30.8	6.3	31962	21.0	3.1	34209	11.3	72000	
SL4004											
178.0	8.4	45945	40.5	5.6	49438	29.1	2.8	54903	16.2	84000	
202.3	7.4	47741	37.1	4.9	50403	26.1	2.5	55975	14.5	84000	
226.3	6.6	48269	33.5	4.4	51268	23.7	2.2	56935	13.2	84000	
259.1	5.8	49214	29.8	3.9	52327	21.1	1.9	56892	11.5	84000	
288.9	5.2	50033	27.2	3.5	53197	19.3	1.7	59078	10.7	84000	
330.4	4.5	51058	24.3	3.0	54287	17.2	1.5	60288	9.6	84000	
370.1	4.1	51943	22.0	2.7	55228	15.6	1.4	59162	8.4	84000	
419.0	3.6	52925	19.8	2.4	56273	14.1	1.2	62493	7.8	84000	
468.8	3.2	53833	18.0	2.1	57238	12.8	1.1	63565	7.1	84000	
524.1	2.9	54748	16.4	1.9	56932	11.4	1.0	62358	6.2	84000	
580.0	2.6	55594	15.1	1.7	59110	10.7	0.86	65644	5.9	84000	17
656.1	2.3	56304	13.5	1.5	58092	9.3	0.76	64513	5.1	84000	
718.2	2.1	57421	12.6	1.4	61053	8.9	0.70	67801	4.9	84000	
803.7	1.9	58406	11.4	1.2	62100	8.1	0.62	68964	4.5	84000	
920.1	1.6	57503	9.8	1.1	61140	7.0	0.54	67898	3.9	84000	
1042	1.4	38498	5.8	1.0	40933	4.1	0.48	45288	2.3	72000	
1076	1.4	50664	7.4	0.93	53869	5.2	0.46	59823	2.9	84000	
1276	1.2	51987	6.4	0.78	55117	4.5	0.39	61209	2.5	84000	
1413	1.1	40310	4.5	0.71	42700	3.2	0.35	47420	1.8	72000	
1631	0.92	41197	4.0	0.61	43640	2.8	0.31	48464	1.6	72000	
1958	0.77	42349	3.4	0.51	44860	2.4	0.26	49819	1.3	72000	

(*)Please consult YIY

请咨询 YIY 公司

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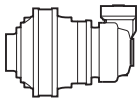
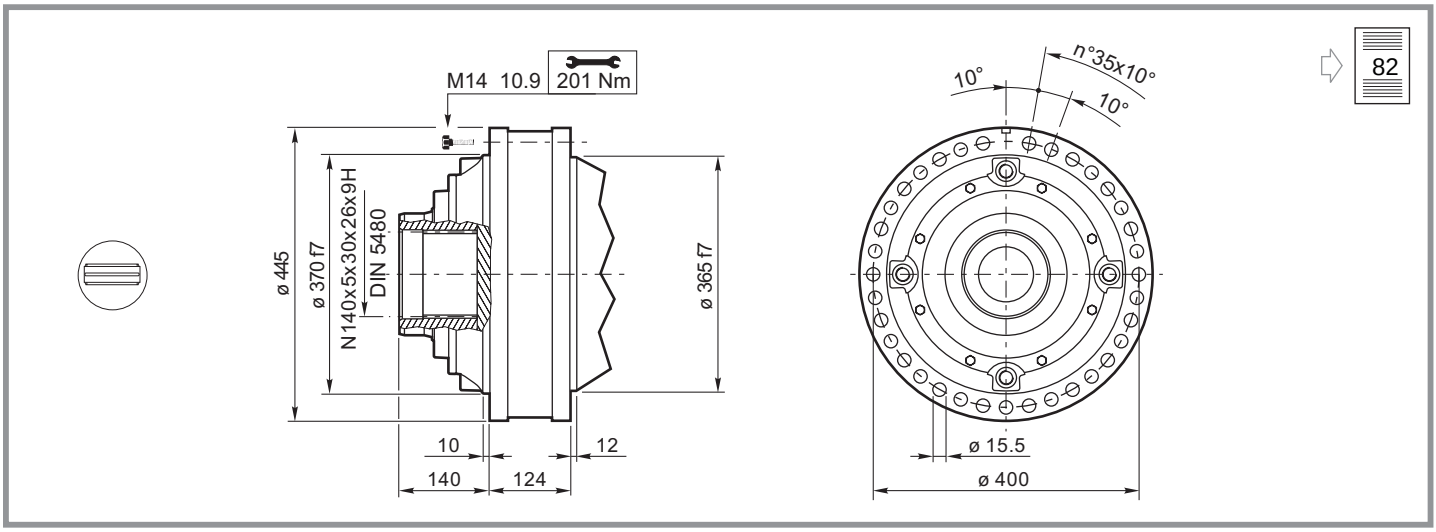
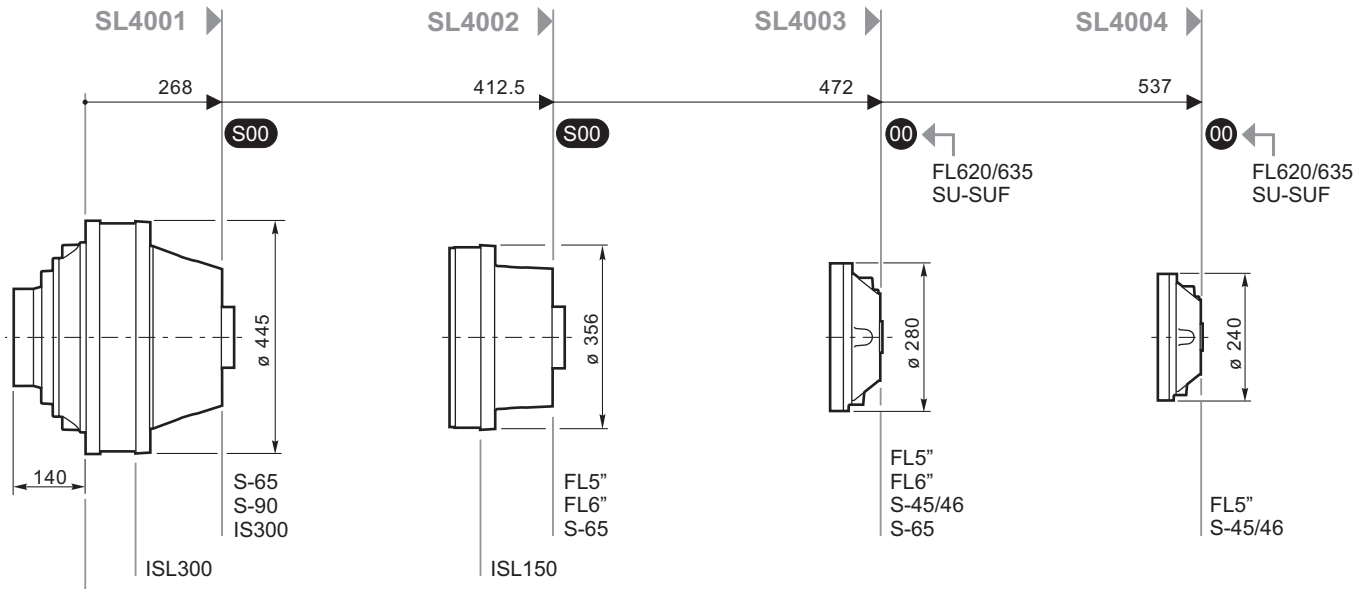


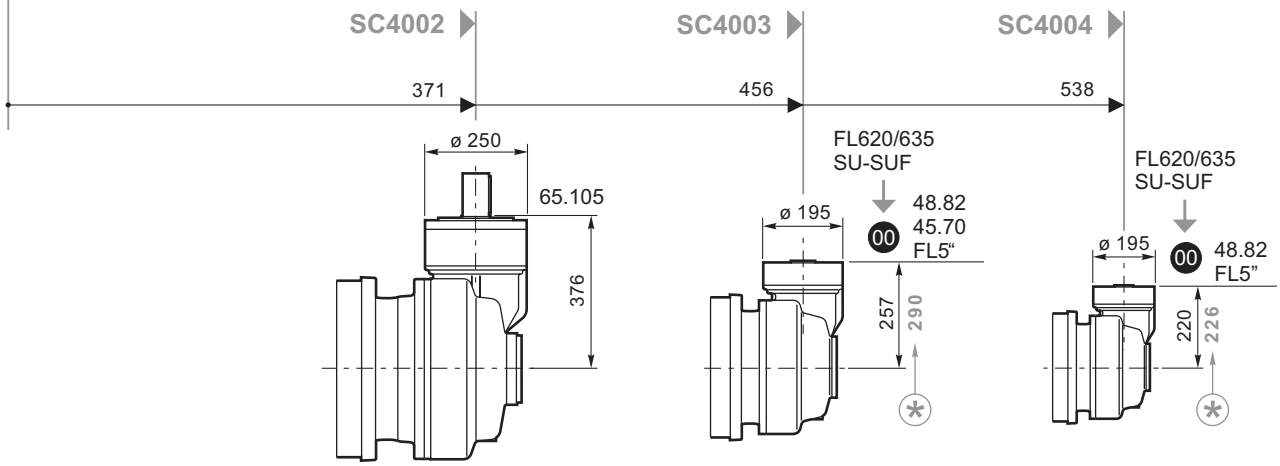
S400

i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SC4002											
12.21	123	10667	137	82	12046	103	41.0	14831	64	81893	
14.28	105	12478	137	70	14092	103	35.0	17350	64	84000	
15.24	98	12430	128	66	14037	96	32.8	17282	59	72000	
17.52	86	15311	137	57	17291	103	28.5	21288	64	72000	21
19.06	79	11112	92	52	12549	69	26.2	15450	42.4	53483	
22.30	67	12999	92	44.8	14681	69	22.4	18074	42.4	62567	
27.36	55	15950	92	36.5	18013	69	18.3	22177	42.4	72000	
SC4003											
45.41*	33.0	17693	61	22.0	19982	46.1	11.0	24601	28.4	84000	
50.81*	29.5	19799	61	19.7	22360	46.1	9.8	27528	28.4	84000	
58.17*	25.8	22666	61	17.2	25597	46.1	8.6	31514	28.4	84000	
65.18*	23.0	25397	61	15.3	28682	46.1	7.7	31573	25.4	72000	
72.93*	20.6	28419	61	13.7	30468	43.7	6.9	31791	22.8	72000	
80.69*	18.6	31441	61	12.4	35508	46.1	6.2	40959	26.6	84000	
86.21*	17.4	24979	45.5	11.6	25608	31.1	5.8	26720	16.2	84000	18
99.00*	15.2	30282	48.0	10.1	31044	32.8	5.1	32393	17.1	72000	
109.7	13.7	24649	35.3	9.1	25990	24.8	4.6	27119	12.9	84000	
123.8*	12.1	30699	39.0	8.1	31472	26.6	4.0	32933	13.9	72000	
142.9	10.5	23075	25.4	7.0	26060	19.1	3.5	32083	11.8	84000	
157.5	9.5	31157	31.1	6.3	31941	21.2	3.2	34156	11.4	72000	
SC4004											
173.4	8.7	39100	35.4	5.8	44157	26.7	2.9	54364	16.4	84000	
194.0	7.7	43752	35.4	5.2	49411	26.7	2.6	55623	15.0	84000	
214.5	7.0	48110	35.2	4.7	50853	24.8	2.3	56474	13.8	84000	
247.7	6.1	48880	31.0	4.0	51971	22.0	2.0	57716	12.2	84000	
277.1	5.4	49718	28.2	3.6	52863	20.0	1.8	58706	11.1	84000	
317.3	4.7	50745	25.1	3.2	53955	17.8	1.6	57799	9.5	84000	
371.2	4.0	43128	18.3	2.7	45856	12.9	1.3	50925	7.2	84000	
380.7	3.9	52164	21.5	2.6	55464	15.3	1.3	59415	8.2	84000	
457.7*	3.3	44795	15.4	2.2	50590	11.6	1.1	62283	7.1	84000	13
512.1*	2.9	50126	15.4	2.0	56609	11.6	0.98	64420	6.6	84000	
586.3*	2.6	55685	14.9	1.7	57325	10.2	0.85	63425	5.7	84000	
599.1*	2.5	46368	12.2	1.7	49301	8.6	0.83	54750	4.8	84000	
685.9*	2.2	47326	10.8	1.5	50319	7.7	0.73	55882	4.3	84000	
813.3*	1.8	48562	9.4	1.2	51633	6.6	0.61	57176	3.7	84000	
900.2*	1.7	37654	6.6	1.1	40036	4.7	0.56	44296	2.6	72000	
1040*	1.4	38483	5.8	0.96	40917	4.1	0.48	45271	2.3	72000	
1247*	1.2	39559	5.0	0.80	42061	3.5	0.40	46536	2.0	72000	

* ⇨ 34







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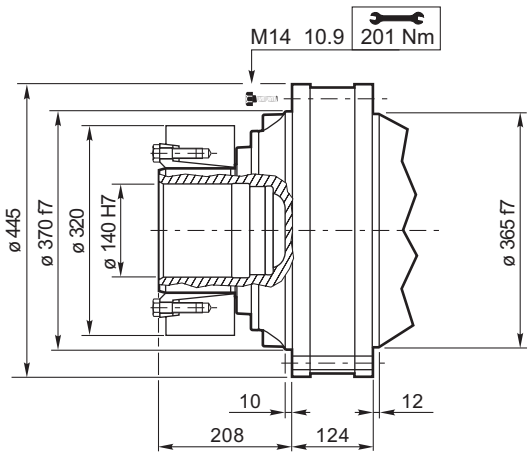

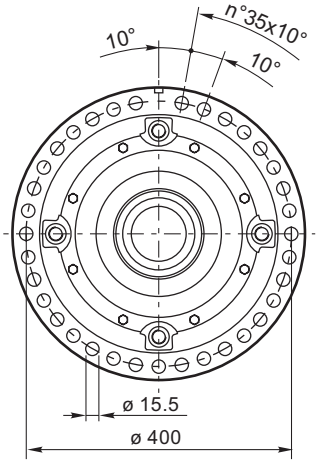

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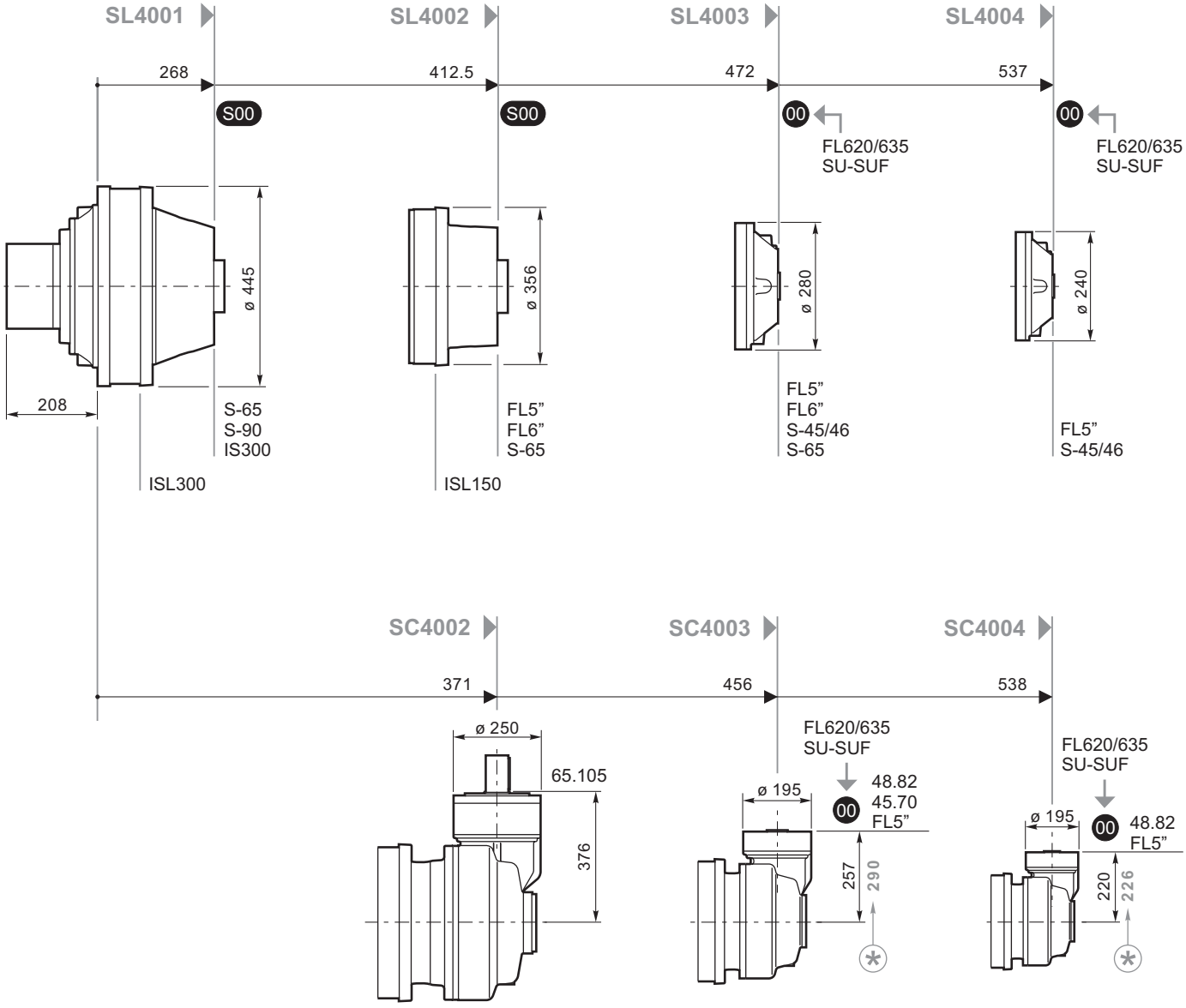

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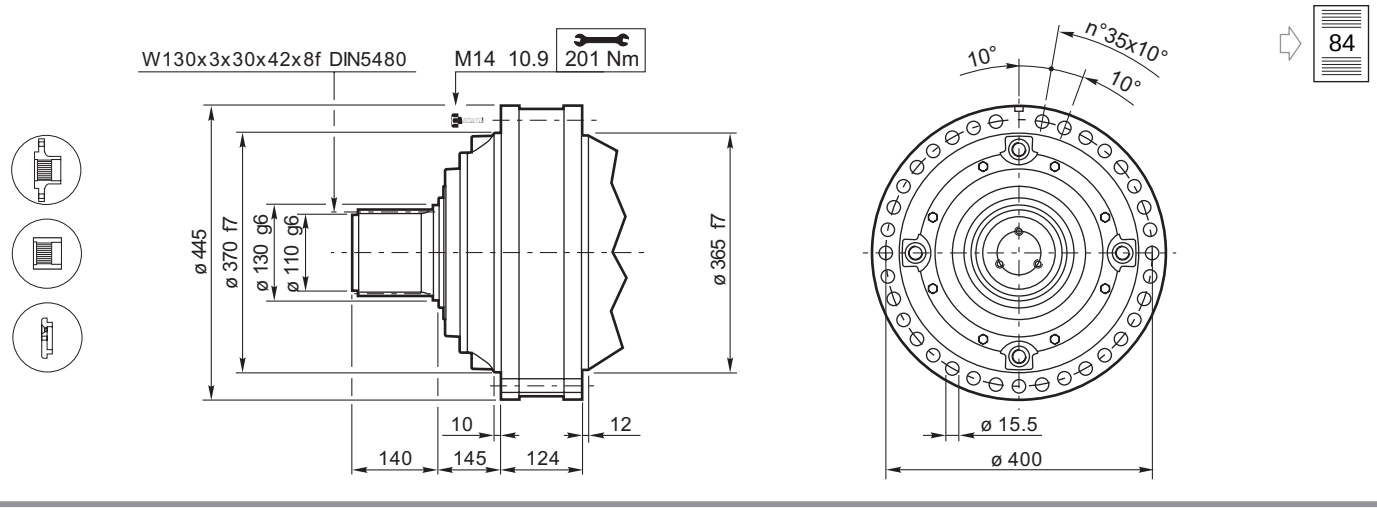

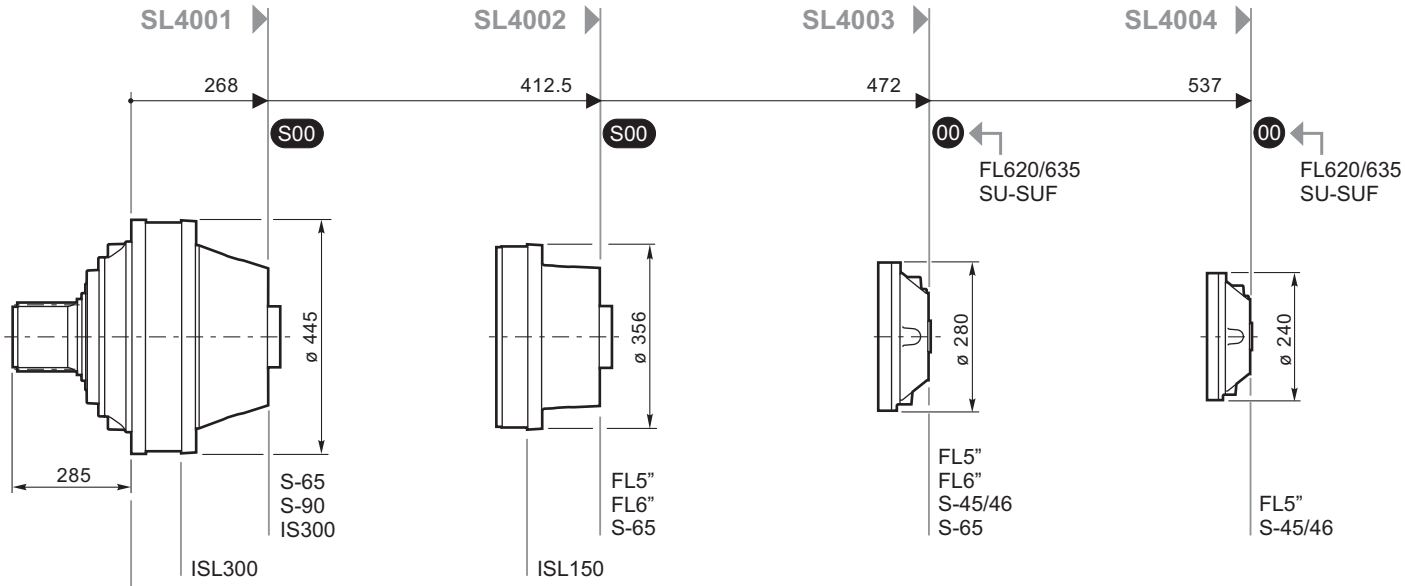

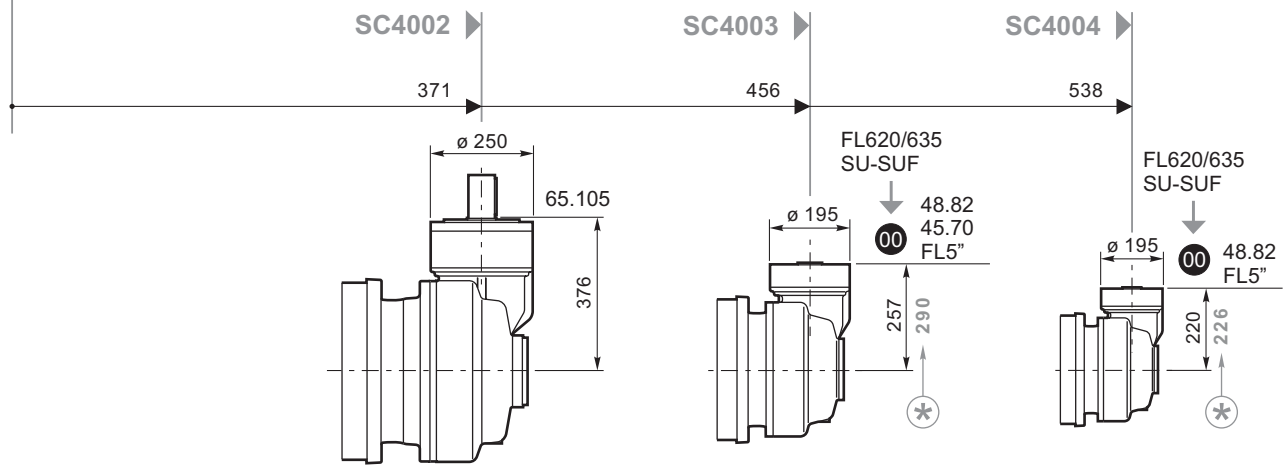

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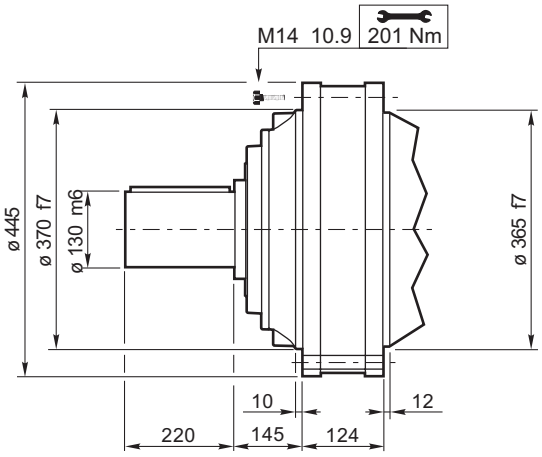

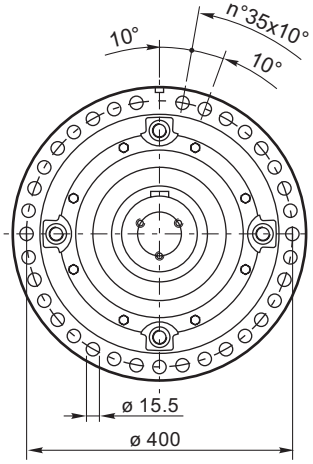

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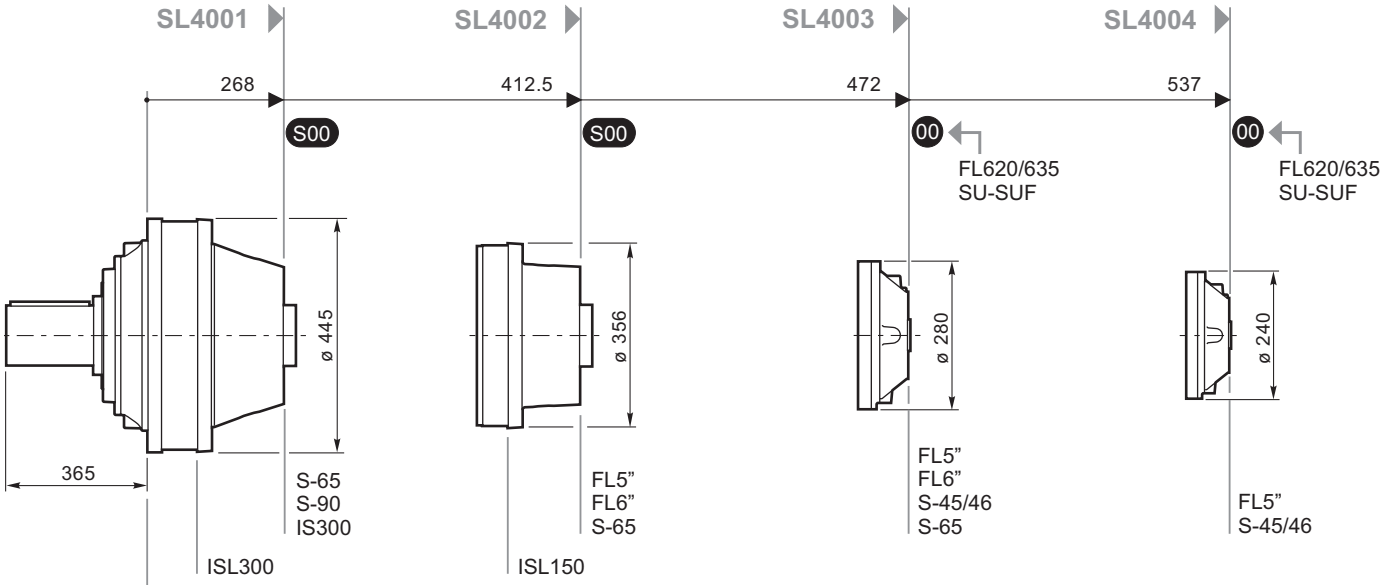
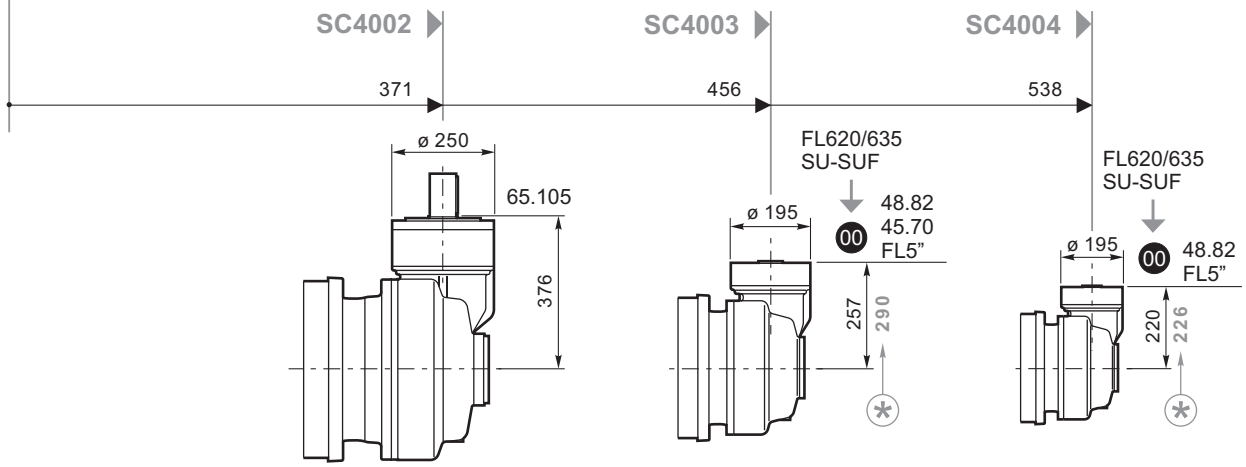
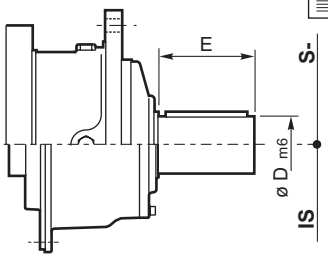




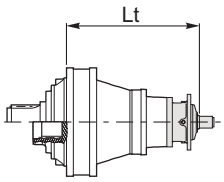
00 91 S00 91 FL620/635 FL5” FL6” SU-SUF S-45/46 S-65 S-90 ISL150 ISL300 IS300 34 65.105 48.82 45.70 35 29 IEC motor 35

S-45/46, S-65, S-90, ISL150, ISL300, IS300

86

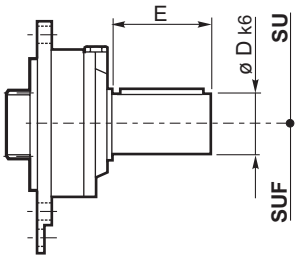


	S-45CR1	S-46C1	S-65CR1	S-90CR1	ISL150	ISL300	IS300
D m6	65	65	80	90	90	90	100
E	105	105	130	170	130	130	210
	Lt						
SL4001			460.5	466.5		338	446
SL4002			604.5		482.5		
SL4003	600	641	638.5				
SL4004	600	641					

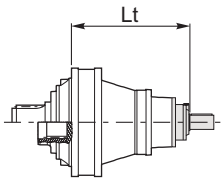


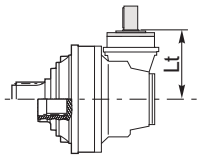
SU-SUF

87



	SU/SUF.1	SU/SUF.2	SU/SUF.3
D k6	28	40	48
E	50	58	82
	Lt		
SL4003	533	533	533
SL4004	597	597	597
SC4003	317-350*	317-350*	317-350*
SC4004	286-280*	286-280*	286-280*

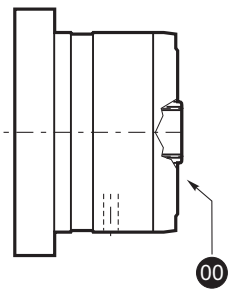




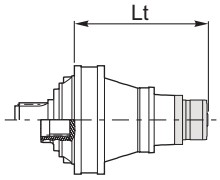
29

FL5”, FL6”

89



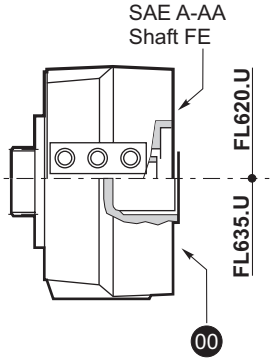
	FL250.4C FL250.6C	FL350.6C FL350.8C	FL450.6C FL450.8C	FL650.10C FL650.12C FL650.14C	FL750.10C FL750.12C FL750.14C	FL960.12C FL960.14C FL960.16C FL960.18C
	Lt					
SL4002	491.5	491.5	491.5	505	505	519
SL4003	577.5	577.5	577.5	591	591	605
SL4004	630.5	630.5	630.5	644	644	
SC4003	408.5-441.5*	408.5-441.5*	408.5-441.5*	422-455*	422-455*	
SC4004	377.5-280*	377.5-280*	377.5-280*	391-293.5*	391-293.5*	



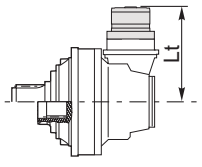
FL620/635

29

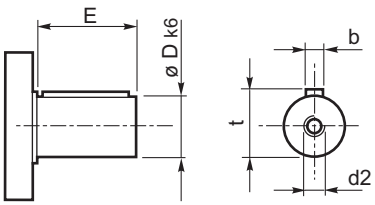
90



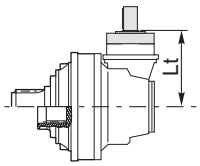
	FL620.U	FL635.U
	Lt	
SL4003	577.5	564.5
SL4004	641.5	628.5
SC4003	361.5-394.5*	348.5-381.5
SC4004	330.5-324*	317.5-311.5*



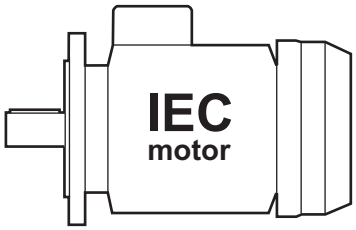
65.105, 48.82, 45.70



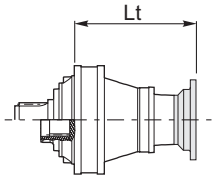
	65.105	48.82	45.70
D k6	65 m6	48	45
E	105	82	70
b	18	14	14
t	69	51.5	48.5
d2	M20x42	M10x22	M10x22
	Lt		
SC4002	376		
SC4003		317	307
SC4004		280	

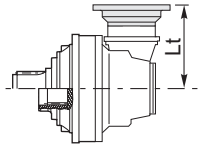


PAM IEC



	IEC80-90	IEC100-112	IEC132	IEC160	IEC180	IEC200	IEC225
	Lt						
SL4003				579	579	609	639
SL4004	564	565	632	663	663	673	703
SC4003				383-416*	383-416*	394-427*	424-457*
SC4004		254-248*	321-315*	352-346*	352-346*	363-357*	





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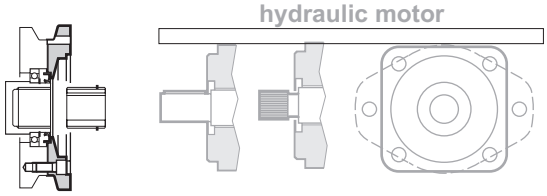
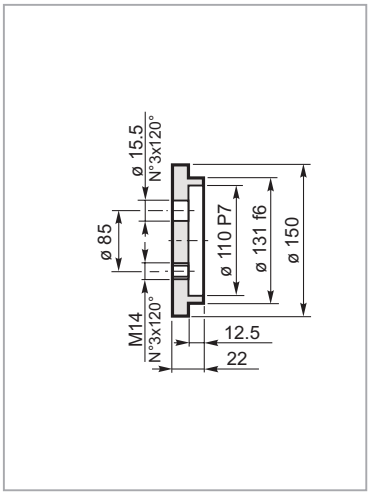
SAE J 744C, NEMA Adaptors



92

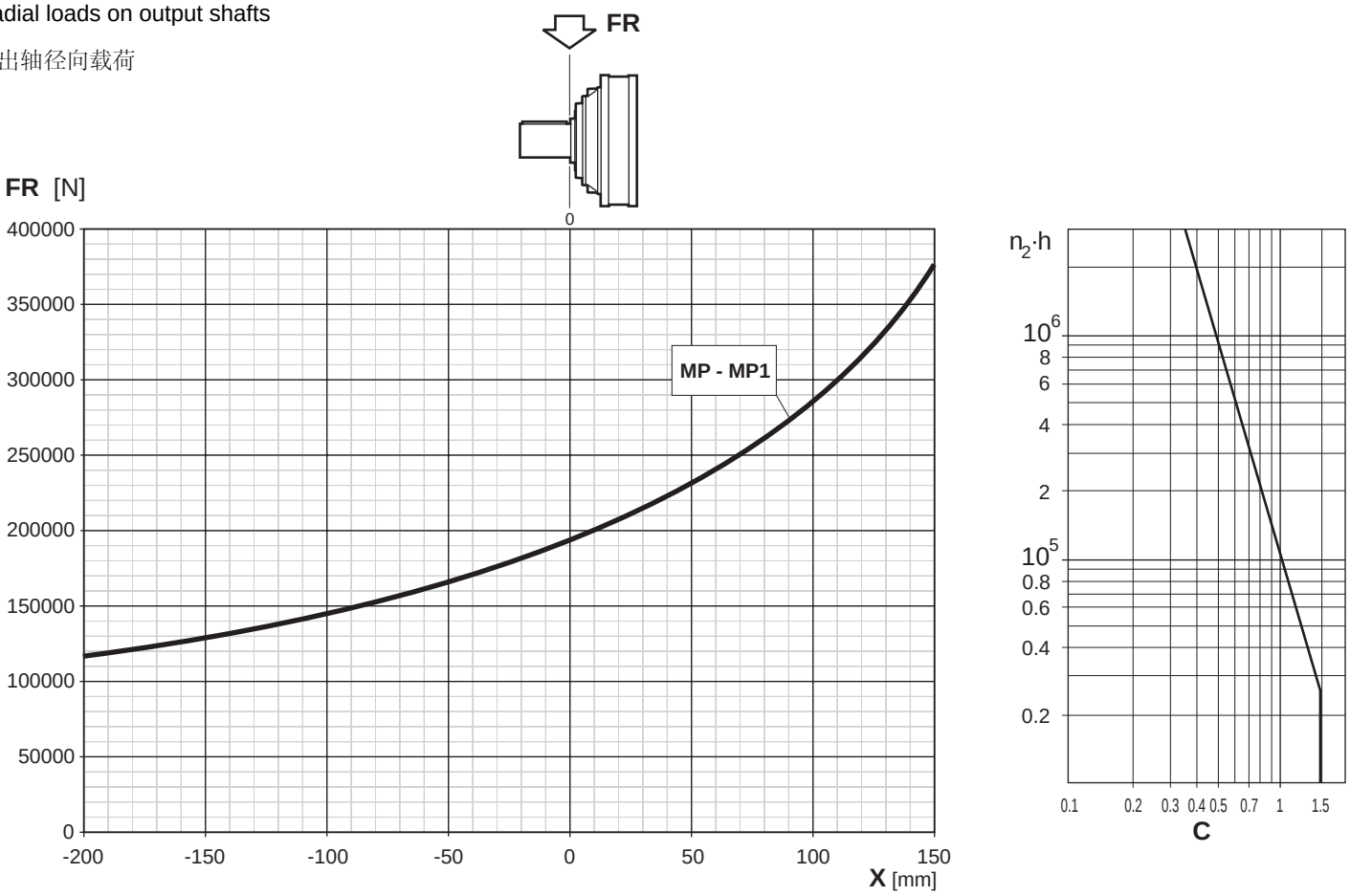
RDF 520



Mat. C40 UNI EN 10083
Code: 37226300000

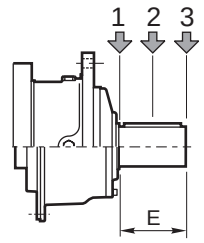
Radial loads on output shafts

输出轴径向载荷

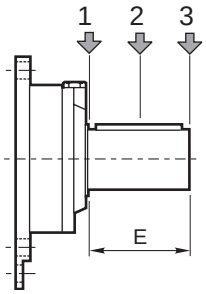


Radial loads on input shafts

输入轴径向载荷

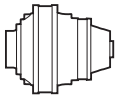


Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
S-45CR1	105	10000	6000	4000	5000	3000	2000
S-46C1	105	14000	8800	6400	7000	4400	3200
S-65CR1	130	23800	15500	9600	11900	7800	4800
S-90CR1	170	29700	17000	10000	14800	8500	5000
ISL150	130	7631	4302	2995	3824	2156	1501
ISL300	130	7631	4302	2995	3824	2156	1501
IS300	210	48814	33068	22914	24465	16573	11484



Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
SU1/SUF1	50	3000	2000	1500	1400	1000	700
SU2/SUF2	58	3000	2000	1500	1400	1000	700
SU3/SUF3	82	3000	1700	1200	1400	800	600

S600

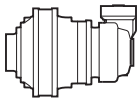


10000 HOURS LIFE

i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SL6001											
4.18				239	26654	668	120	32815	411	140000	
4.89		*		204	27422	587	102	33761	361	120000	
6.00				167	28506	498	83	35095	306	94000	
SL6002											
18.81	80	32558	272	53	36769	205	26.6	45268	126	140000	
19.76	76	36914	294	51	41689	221	25.3	49588	131	120000	
22.01	68	38088	272	45.4	43015	205	22.7	49917	119	120000	
25.04	60	38864	244	39.9	43891	184	20.0	50314	105	120000	47
29.34	51	40237	215	34.1	45441	162	17.0	50806	91	120000	
30.72	48.8	37213	190	32.6	38150	130	16.3	39808	68	94000	
35.99	41.7	38902	170	27.8	43934	128	13.9	46759	68	120000	
44.16	34.0	38051	135	22.6	39009	93	11.3	40704	48.3	94000	
SL6003											
68.90	21.8	48892	111	14.5	55216	84	7.3	63350	48.1	140000	
80.60	18.6	50532	98	12.4	51805	67	6.2	54055	35.1	120000	
89.78	16.7	50868	89	11.1	52149	61	5.6	54414	31.7	120000	
98.12	15.3	52731	84	10.2	59552	64	5.1	66217	35.3	140000	
109.3	13.7	55196	79	9.2	62336	60	4.6	67306	32.2	140000	
130.2	11.5	58169	70	7.7	63129	51	3.8	69109	27.8	140000	31
145.7	10.3	58310	63	6.9	60253	43.3	3.4	62870	22.6	140000	
163.6	9.2	62304	60	6.1	64423	41.2	3.1	69840	22.3	140000	
186.2	8.1	62946	53	5.4	65693	36.9	2.7	72955	20.5	140000	
203.0	7.4	53479	41.4	4.9	55244	28.5	2.5	61351	15.8	120000	
218.2	6.9	60246	43.4	4.6	61764	29.6	2.3	64447	15.5	140000	
SL6004											
241.1	6.2	64250	41.9	4.1	68314	29.7	2.1	75865	16.5	140000	
284.6	5.3	65879	36.4	3.5	70046	25.8	1.8	77788	14.3	140000	
317.0	4.7	66962	33.2	3.2	71198	23.5	1.6	79068	13.1	140000	
360.6	4.2	68282	29.7	2.8	72601	21.1	1.4	80626	11.7	140000	
413.4	3.6	69708	26.5	2.4	74117	18.8	1.2	82309	10.4	140000	
460.5	3.3	70854	24.2	2.2	75335	17.1	1.1	83663	9.5	140000	
523.9	2.9	72251	21.7	1.9	76821	15.4	1.0	85312	8.5	140000	
569.9	2.6	73177	20.2	1.8	77806	14.3	0.88	86406	7.9	140000	
655.7	2.3	74745	17.9	1.5	79473	12.7	0.76	88258	7.0	140000	
711.3	2.1	75672	16.7	1.4	80458	11.8	0.70	89351	6.6	140000	
792.3	1.9	76916	15.2	1.3	81781	10.8	0.63	90821	6.0	140000	21
943.7	1.6	78977	13.1	1.1	83972	9.3	0.53	93254	5.2	140000	
962.6	1.6	79215	12.9	1.0	84225	9.2	0.52	87889	4.8	140000	
1117	1.3	81019	11.4	0.90	85003	8.0	0.45	88695	4.2	140000	
1307	1.1	68861	8.3	0.77	73216	5.9	0.38	81309	3.3	120000	
1350	1.1	83371	9.7	0.74	85995	6.7	0.37	89731	3.5	140000	
1579	0.95	70860	7.0	0.63	75342	5.0	0.32	83670	2.8	120000	
1851	0.81	72581	6.2	0.54	77172	4.4	0.27	85702	2.4	120000	
1986	0.76	56039	4.4	0.50	59584	3.1	0.25	66170	1.7	94000	
2270	0.66	57916	4.0	0.44	61579	2.8	0.22	68386	1.6	120000	
2785	0.54	58980	3.3	0.36	62710	2.4	0.18	69642	1.3	94000	

(*)Please consult YIY

请咨询 YIY 公司



i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SC6003											
42.89	35.0	34984	128	23.3	39509	96	11.7	48641	59	140000	
49.31	30.4	43093	137	20.3	48667	103	10.1	59916	64	140000	
57.69	26.0	49506	135	17.3	50753	92	8.7	52957	48.1	120000	
64.26	23.3	49834	122	15.6	51090	83	7.8	53309	43.4	120000	
74.52	20.1	50290	106	13.4	51556	72	6.7	53796	37.8	120000	
74.52	20.1	50290	106	13.4	51556	72	6.7	53796	37.8	120000	
77.01	19.5	44892	92	13.0	50699	69	6.5	62418	42.4	140000	22
90.09	16.7	50878	89	11.1	52160	61	5.6	54425	31.6	120000	
97.59	15.4	52373	84	10.2	59147	63	5.1	66163	35.5	140000	
114.4	13.1	54222	74	8.7	59364	54	4.4	61943	28.4	140000	
128.9	11.6	40636	49.5	7.8	41660	33.8	3.9	43755	17.8	94000	
133.8	11.2	52128	61	7.5	53441	41.8	3.7	57600	22.5	120000	
164.1	9.1	47975	45.9	6.1	49184	31.4	3.0	51320	16.4	120000	
201.4	7.4	41763	32.6	5.0	42815	22.3	2.5	46806	12.2	94000	
SC6004											
234.5*	6.4	63980	42.9	4.3	68026	30.4	2.1	75546	16.9	140000	
261.2*	5.7	65032	39.1	3.8	69145	27.7	1.9	76788	15.4	140000	
269.8*	5.6	65351	38.0	3.7	69484	27.0	1.9	77165	15.0	140000	
321.4*	4.7	67102	32.8	3.1	71347	23.2	1.6	79233	12.9	140000	
358.0*	4.2	68206	29.9	2.8	72520	21.2	1.4	80536	11.8	140000	
409.0	3.7	69595	26.7	2.4	73997	18.9	1.2	82177	10.5	140000	
462.6	3.2	70904	24.1	2.2	75388	17.1	1.1	83721	9.5	140000	
518.3	2.9	72134	21.9	1.9	76697	15.5	0.96	85175	8.6	140000	
569.1	2.6	73161	20.2	1.8	77788	14.3	0.88	86387	7.9	140000	
651.7	2.3	74676	18.0	1.5	79399	12.8	0.77	85810	6.9	140000	17
721.2	2.1	75830	16.5	1.4	80626	11.7	0.69	89538	6.5	140000	
797.0	1.9	71947	14.2	1.3	73759	9.7	0.63	76963	5.1	140000	
906.8	1.7	78502	13.6	1.1	83467	9.6	0.55	87567	5.1	140000	
988.8	1.5	66015	10.5	1.0	70191	7.4	0.51	77950	4.1	120000	
1096	1.4	53902	7.7	0.91	55260	5.3	0.46	61253	2.9	120000	
1243	1.2	68341	8.6	0.80	72664	6.1	0.40	80696	3.4	120000	
1345	1.1	52828	6.2	0.74	56170	4.4	0.37	62379	2.4	94000	
1525	0.98	55006	5.7	0.66	57982	4.0	0.33	64391	2.2	120000	
1871	0.80	55535	4.7	0.53	59048	3.3	0.27	65574	1.8	94000	

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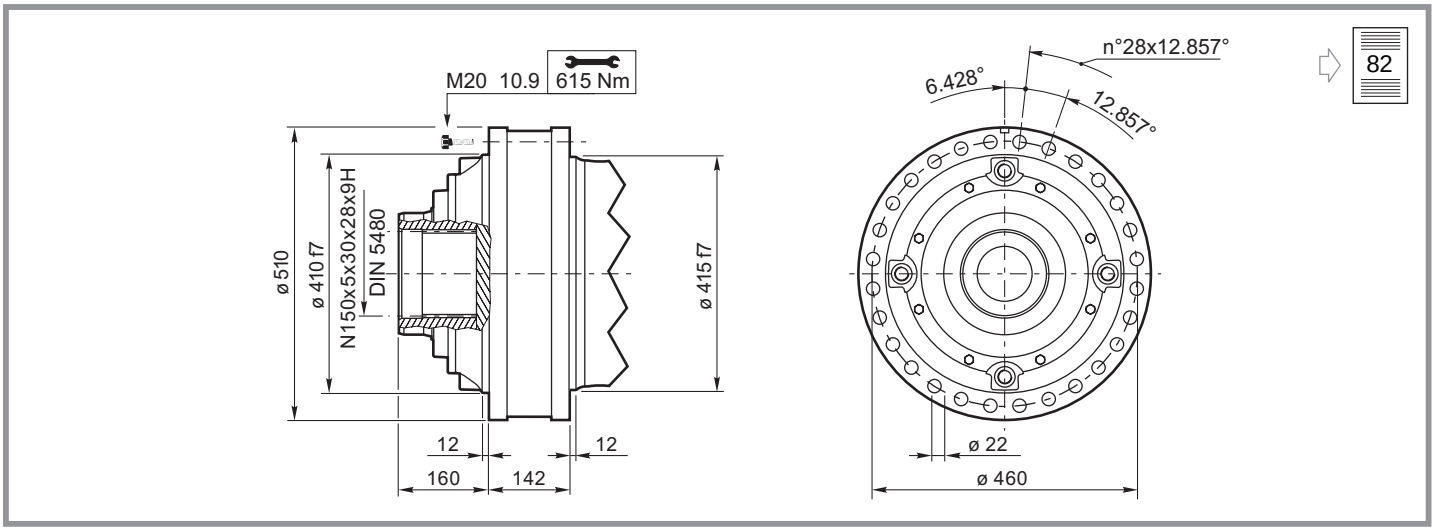
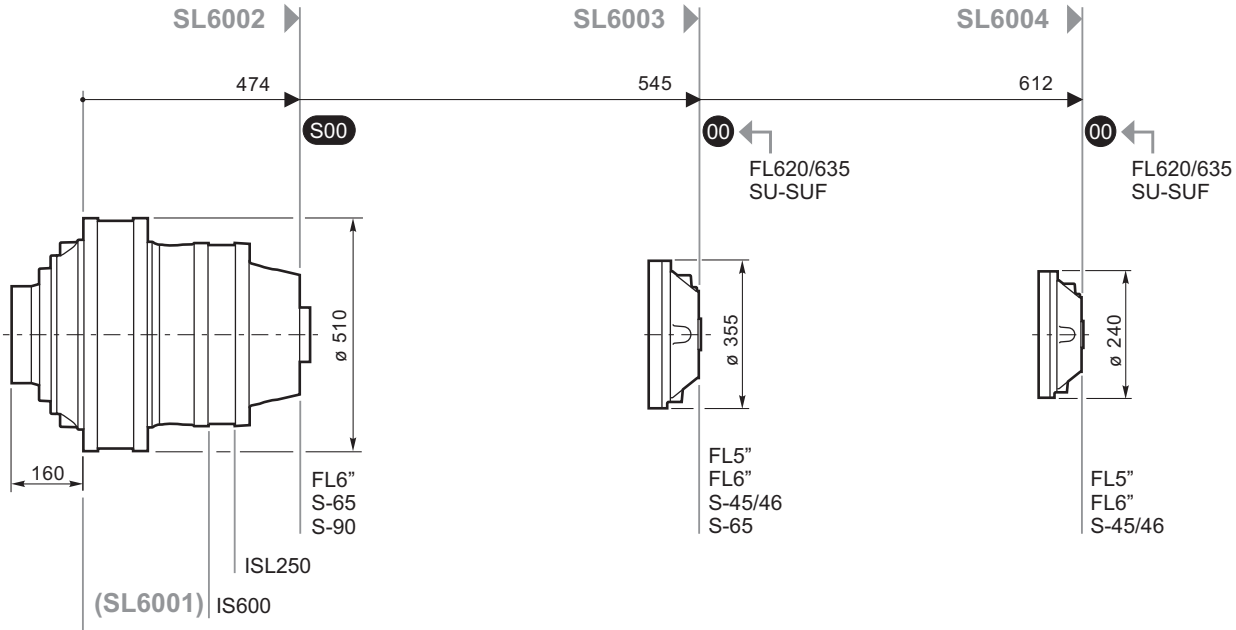
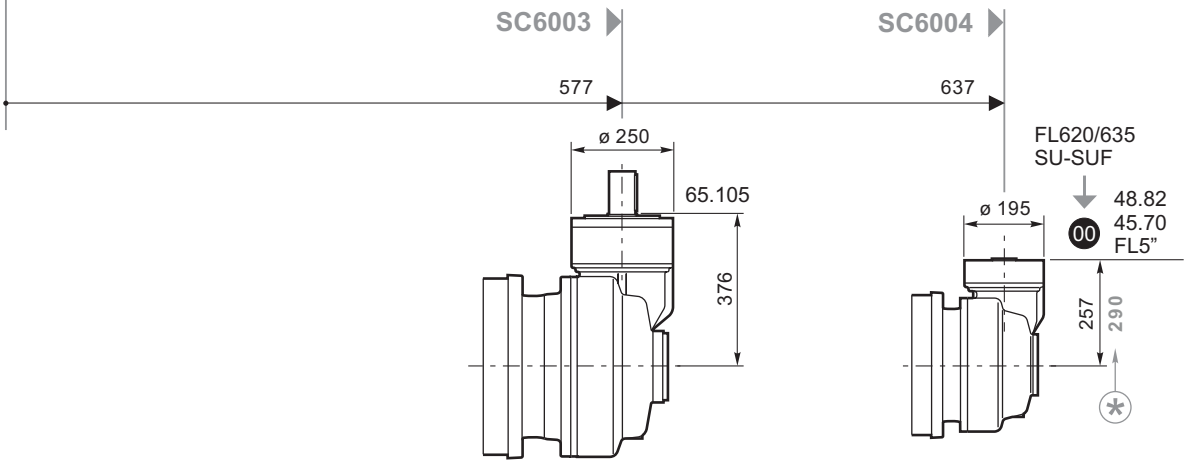
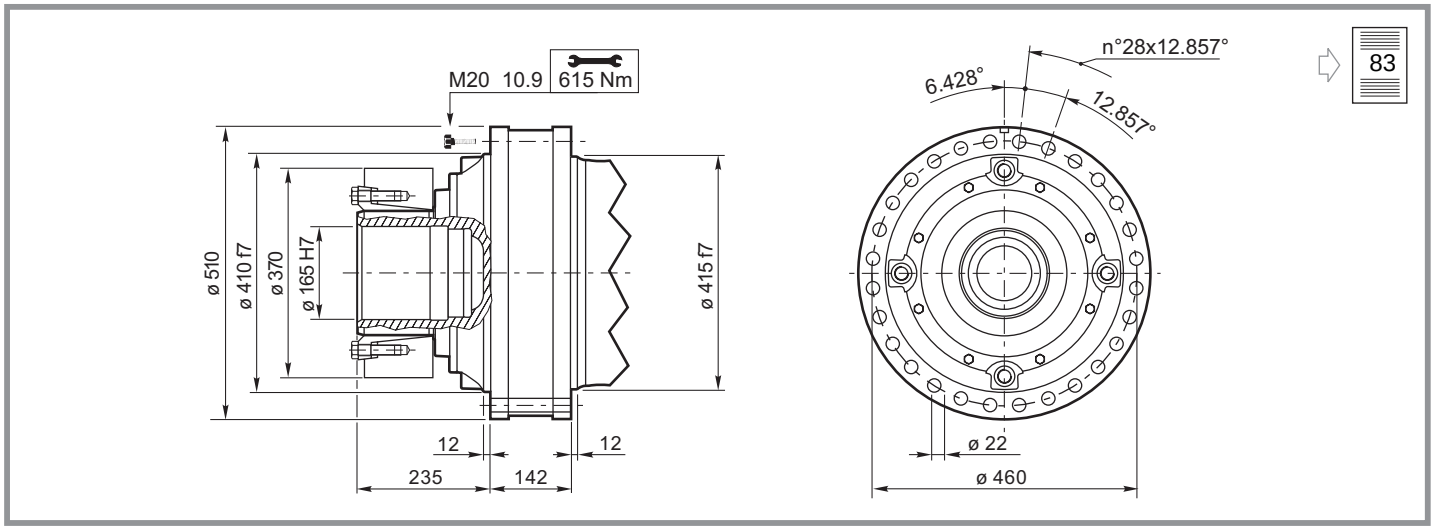
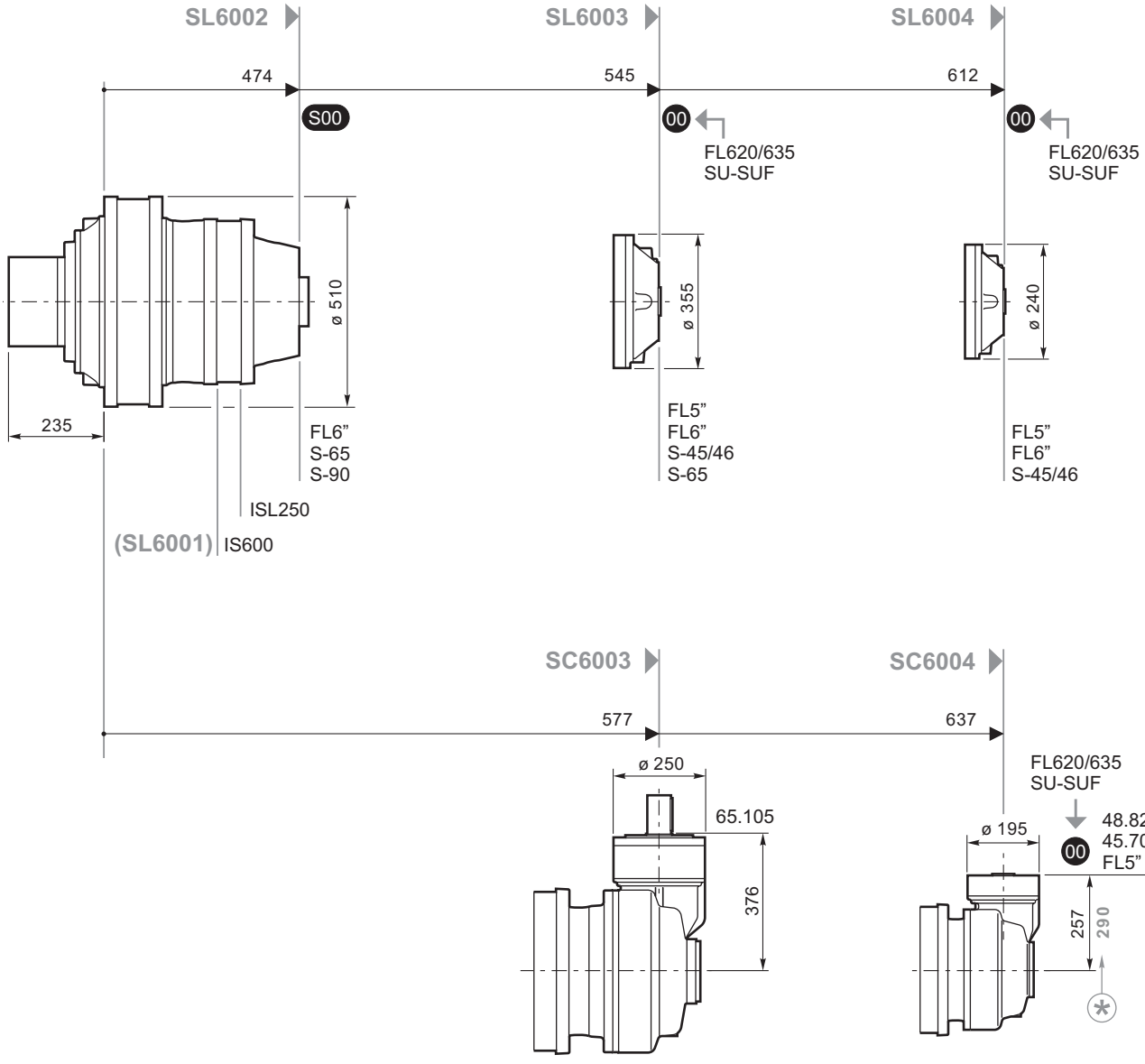




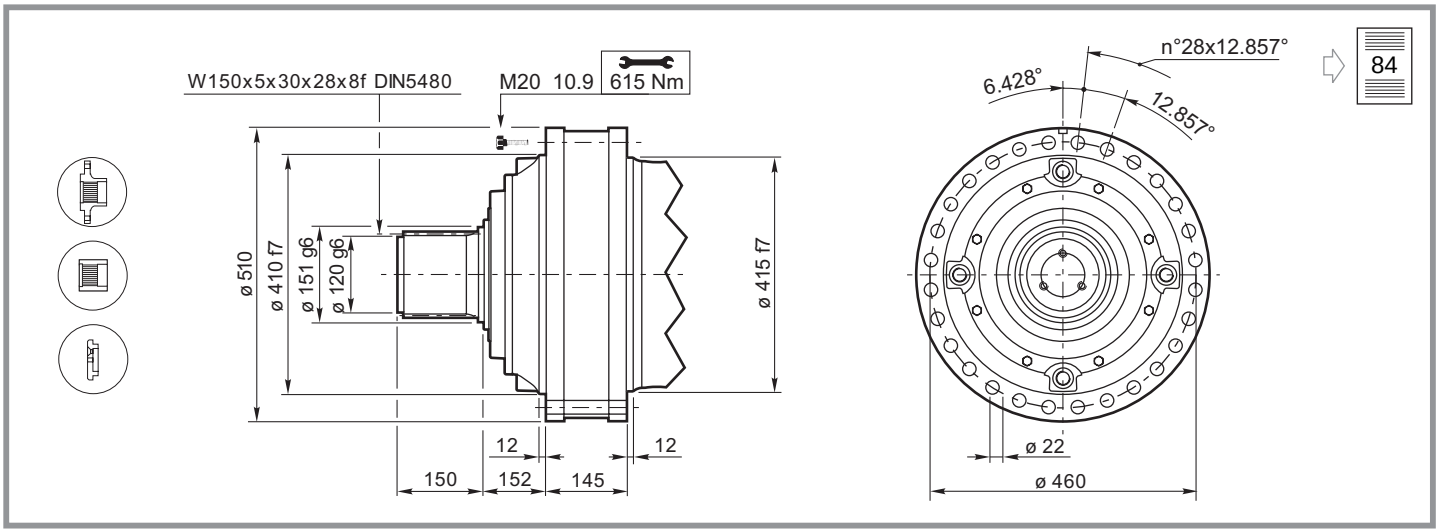


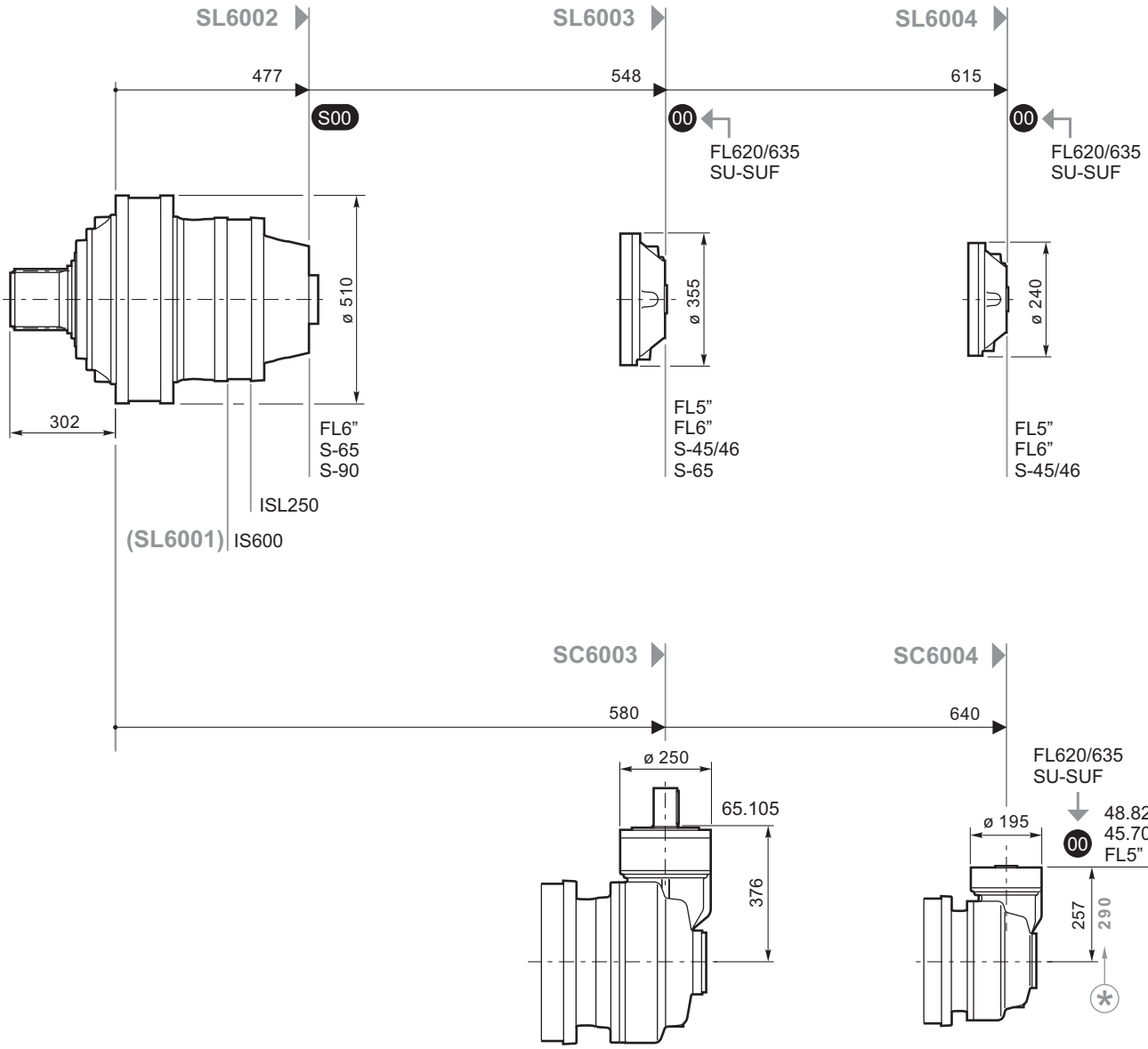
00 91
S00 91
FL620/635 FL5" FL6" SU-SUF
S-45/46 S-65 S-90 ISL250 IS600
44
65.105 48.82 45.70
45
39
IEC motor
45





00 91 S00 91 FL620/635 FL5" FL6" SU-SUF S-45/46 S-65 S-90 ISL250 IS600 44 65.105 48.82 45.70 45 39 IEC motor 45





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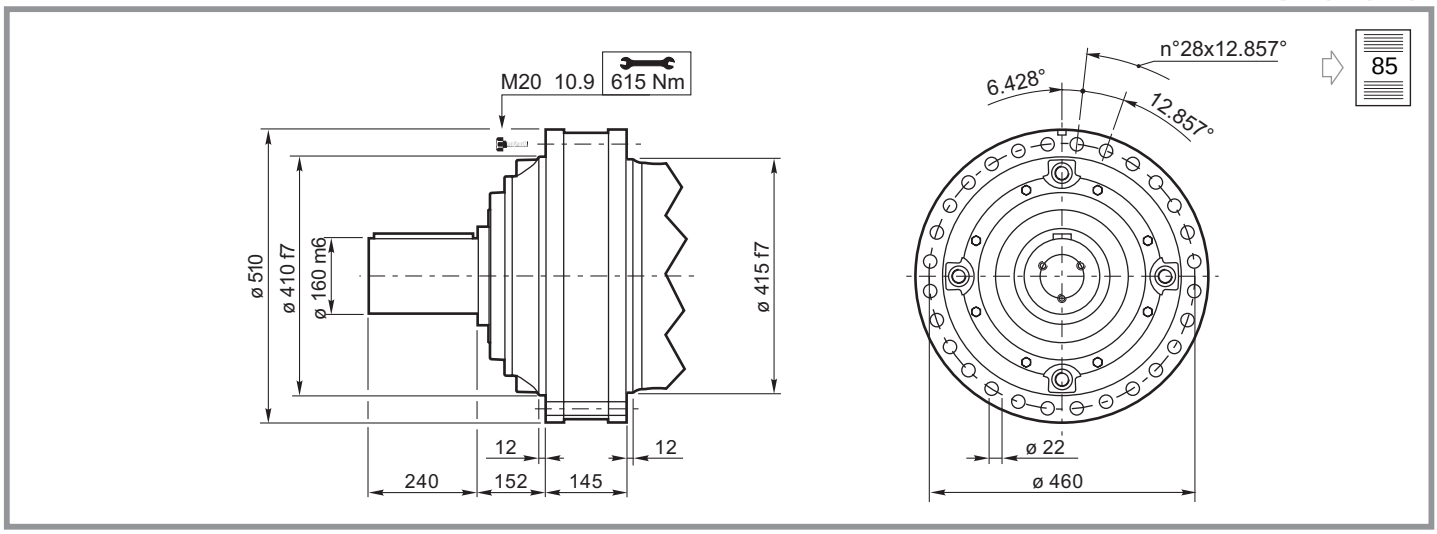

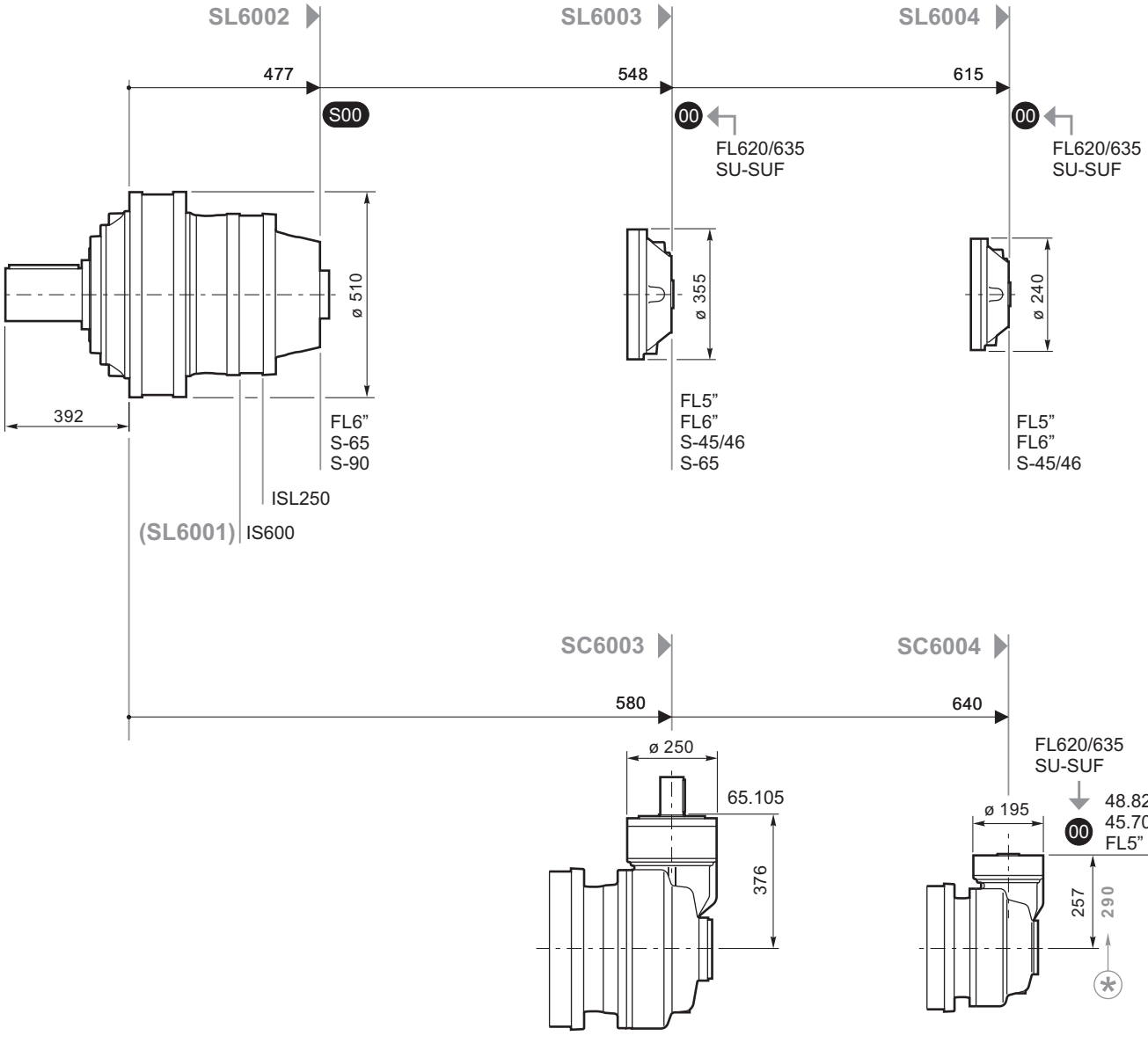

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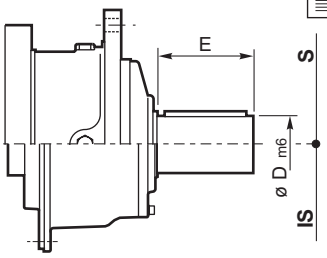
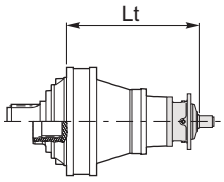
S-45/46, S-65, S-90, ISL250, IS600

86

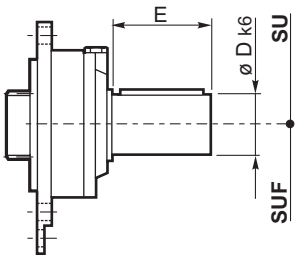


	S-45CR1	S-46C1	S-65CR1	S-90CR1	ISL250	IS600
D m6	65	65	80	90	90	110
E	105	105	130	170	130	210
	Lt (FE - FS)					
SL6001						488
SL6002			666.5	672.5	544	
SL6003	675	716	714			
SL6004	675	716				
	Lt (MP - MP1)					
SL6001						491
SL6002			669.5	675.5	547	
SL6003	678	719	717			
SL6004	678	719				

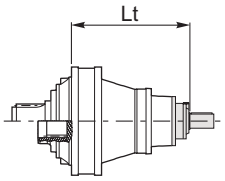


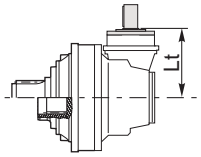
SU-SUF

87



	SU/SUF.1	SU/SUF.2	SU/SUF.3
D k6	28	40	48
E	50	58	82
	Lt (FE - FS)		
SL6003	605	605	605
SL6004	672	672	672
	Lt (MP - MP1)		
SL6003	608	608	608
SL6004	675	675	675
	Lt		
SC6004	317-350*	317-350*	317-350*





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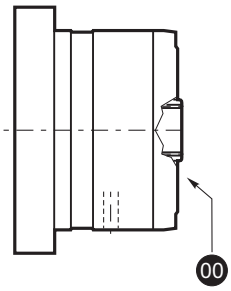
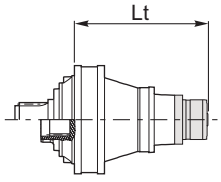
FL5”, FL6”

89

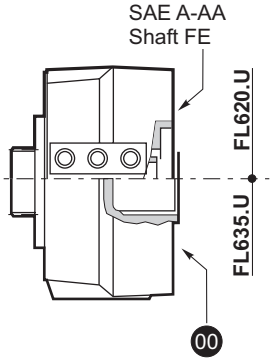


	FL250.4C FL250.6C	FL350.6C FL350.8C	FL450.6C FL450.8C	FL650.10C FL650.12C FL650.14C	FL750.10C FL750.12C FL750.14C	FL960.12C FL960.14C FL960.16C FL960.18C
	Lt (FE - FS)					
SL6002						594
SL6003	645	645	645	658.5	658.5	672.5
SL6004	705.5	705.5	705.5	719	719	746
	Lt (MP - MP1)					
SL6002						597
SL6003	648	648	648	661.5	661.5	675.5
SL6004	708.5	708.5	708.5	722	722	749
	Lt					
SC6004	408.5-441.5*	408.5-441.5*	408.5-441.5*	422-455*	422-455*	



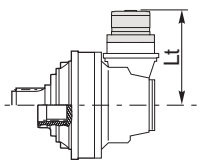
FL620/635

90

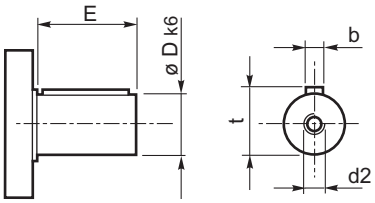


	FL620.U	FL635.U
	Lt (FE - FS)	
SL6003	649.5	636.5
SL6004	716.5	703.5
	Lt (MP - MP1)	
SL6003	652.5	639.5
SL6004	719.5	706.5
	Lt	
SC6004	361.5-394.5*	348.5-381.5

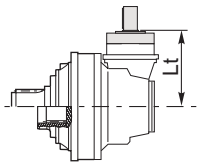
* 39



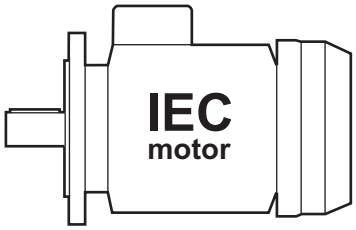
65.105, 48.82, 45.70



	65.105	48.82	45.70
D k6	65 m6	48	45
E	105	82	70
b	18	14	14
t	69	51.5	48.5
d2	M20x42	M10x22	M10x22
	Lt		
SC6003	376		
SC6004		317	307



PAM IEC



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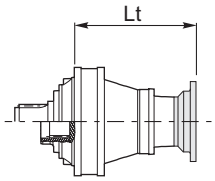
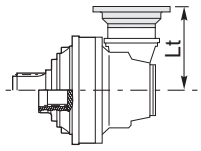
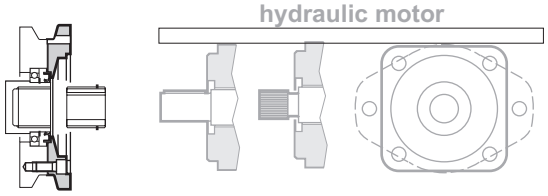
	Lt (FE - FS)						
SL6003				645	645	684	712
SL6004		640	707	738	738	748	778
	Lt (MP - MP1)						
SL6003				648	648	687	715
SL6004		643	710	741	741	751	781
	Lt						
SC6004		285-318*	352-385*	383-416*	383-416*	394-427*	424-457*





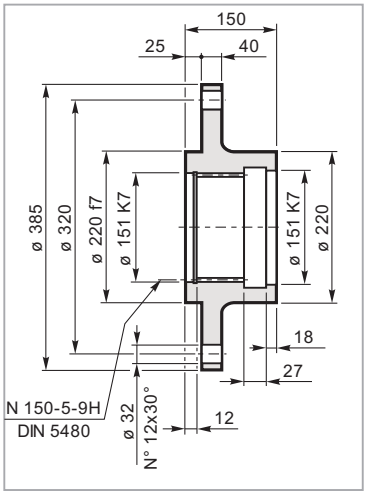
39

SAE J 744C, NEMA Adaptors



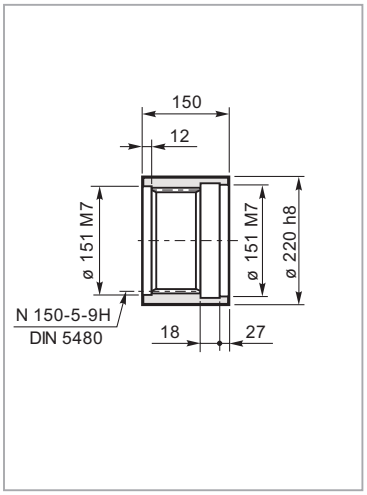
92

FR 600



Mat. C40 UNI EN 10083
Code: 34704012800

MS 600



Mat. 39NiCrMo3 UNI EN 10083
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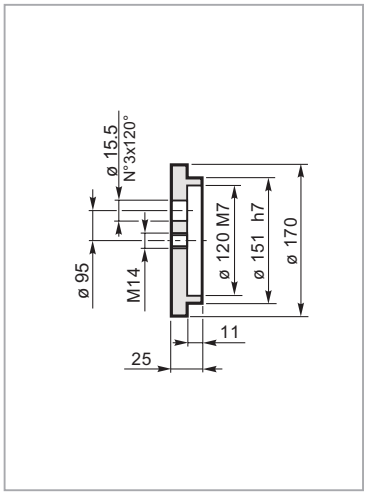
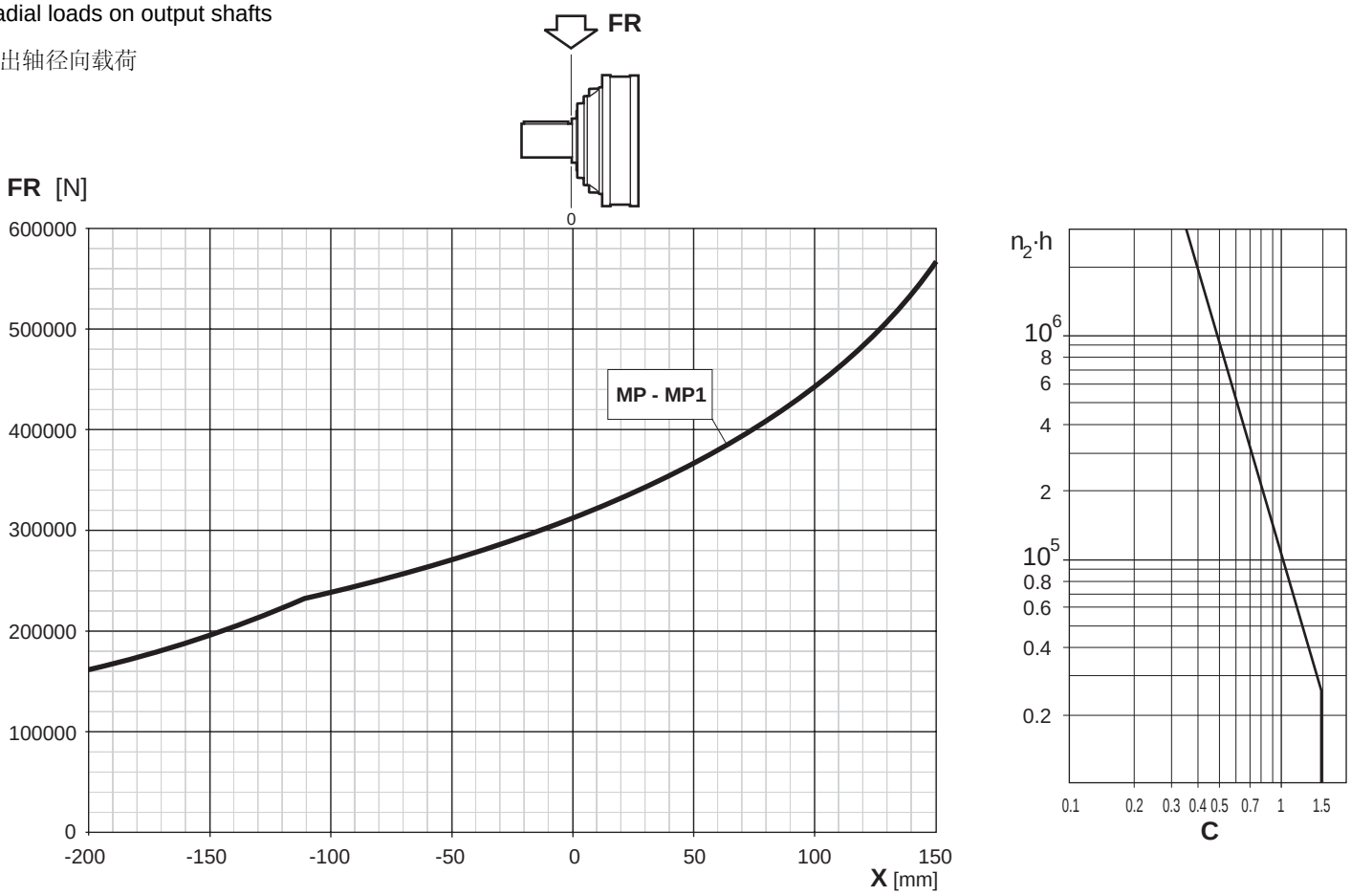
RDF S600



Mat. C40 UNI EN 10083
Code: 9001845

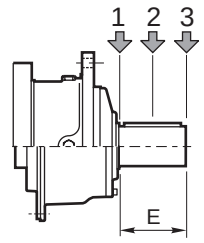
Radial loads on output shafts

输出轴径向载荷

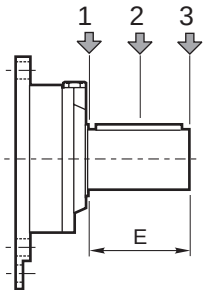


Radial loads on input shafts

输入轴径向载荷

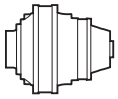


Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
S-45CR1	105	10000	6000	4000	5000	3000	2000
S-46C1	105	14000	8800	6400	7000	4400	3200
S-65CR1	130	23800	15500	9600	11900	7800	4800
S-90CR1	170	29700	17000	10000	14800	8500	5000
ISL250	130	7631	4302	2995	3824	2156	1501
IS600	210	54366	36909	26346	27248	18498	13204



Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
SU1/SUF1	50	3000	2000	1500	1400	1000	700
SU2/SUF2	58	3000	2000	1500	1400	1000	700
SU3/SUF3	82	3000	1700	1200	1400	800	600

S850



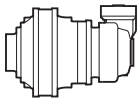
10000 HOURS LIFE

i_{eff}	n_1 [rpm] 1500			1000			500			T_{2MAX} [Nm]	P_T [kW]
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SL8501											
4.18							120	42957	538	195000	
4.89				*			102	44196	473	167000	
6.00							83	45944	401	123000	
SL8502											
18.81				53	54789	305	26.6	67453	188	195000	
19.76				51	54574	289	25.3	67189	178	167000	
21.40				46.7	56952	279	23.4	70117	172	195000	
25.08		*		39.9	59727	249	19.9	73533	154	195000	56
29.34				34.1	61449	219	17.0	70921	127	167000	
30.77				32.5	57250	195	16.3	59737	102	150480	
35.99				27.8	65333	190	13.9	69884	102	167000	
SL8503											
74.30	20.2	73256	155	13.5	82732	117	6.7	89127	63	195000	
83.14	18.0	75769	143	12.0	85569	108	6.0	90435	57	195000	
87.32	17.2	70886	128	11.5	72671	87	5.7	75828	45.5	167000	
101.3	14.8	80401	125	9.9	87058	90	4.9	93182	48.2	195000	
112.9	13.3	83044	116	8.9	87635	81	4.4	94714	43.9	195000	38
128.4	11.7	86162	105	7.8	88332	72	3.9	96582	39.4	195000	
141.1	10.6	86661	96	7.1	88843	66	3.5	97965	36.4	195000	
160.5	9.3	87350	85	6.2	89954	59	3.1	99897	32.6	195000	
188.1	8.0	88204	74	5.3	92138	51	2.7	97951	27.3	195000	
202.5	7.4	58475	45	4.9	59948	31.0	2.5	65570	17.0	123000	
SL8504											
233.5	6.4	89536	60	4.3	95199	42.7	2.1	105722	23.7	195000	
261.2	5.7	91071	55	3.8	96831	38.8	1.9	107535	21.6	195000	
291.0	5.2	92569	50.0	3.4	98424	35.4	1.7	109303	19.7	195000	
329.8	4.6	94340	44.9	3.0	100307	31.8	1.5	111394	17.7	195000	
371.5	4.0	96053	40.6	2.7	102128	28.8	1.4	113417	16.0	195000	
418.0	3.6	97782	36.7	2.4	103967	26.0	1.2	115459	14.5	195000	
468.9	3.2	99496	33.3	2.1	105789	23.6	1.1	117483	13.1	195000	
512.7	2.9	100849	30.9	2.0	107227	21.9	1.0	119080	12.2	195000	
571.1	2.6	102507	28.2	1.8	108991	20.0	0.88	121038	11.1	195000	
649.8	2.3	104528	25.3	1.5	111140	17.9	0.77	123425	9.9	195000	26
705.4	2.1	105835	23.6	1.4	112529	16.7	0.71	124733	9.3	195000	
802.6	1.9	107922	21.1	1.3	114748	15.0	0.62	127432	8.3	195000	
940.5	1.6	101069	16.9	1.1	105722	11.8	0.53	117408	6.5	195000	
963.1	1.6	110939	18.1	1.0	117956	12.8	0.52	130995	7.1	195000	
1129	1.3	102213	14.2	0.89	108678	10.1	0.44	120691	5.6	195000	
1296	1.2	81392	9.9	0.77	84549	6.8	0.39	93895	3.8	167000	
1350	1.1	81596	9.5	0.74	85072	6.6	0.37	94476	3.7	167000	
1620	0.93	82514	8.0	0.62	87451	5.7	0.31	97118	3.1	167000	
1987	0.75	78443	6.2	0.50	83405	4.4	0.25	92624	2.4	123000	

(*)Please consult YIY

请咨询 YIY 公司

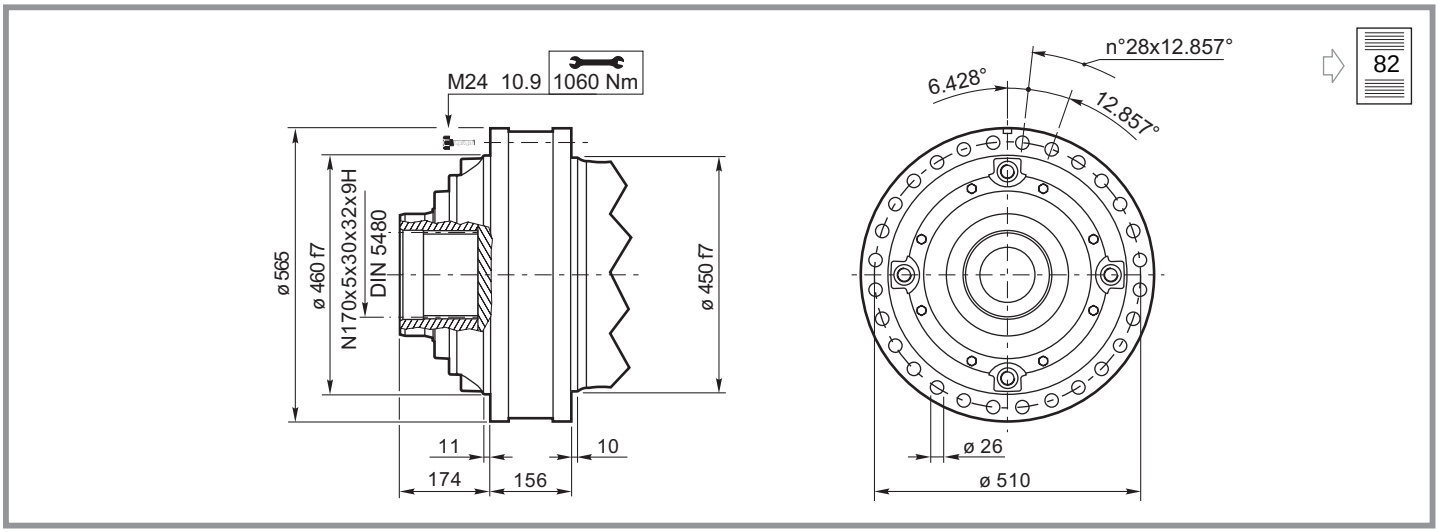
10000 HOURS LIFE

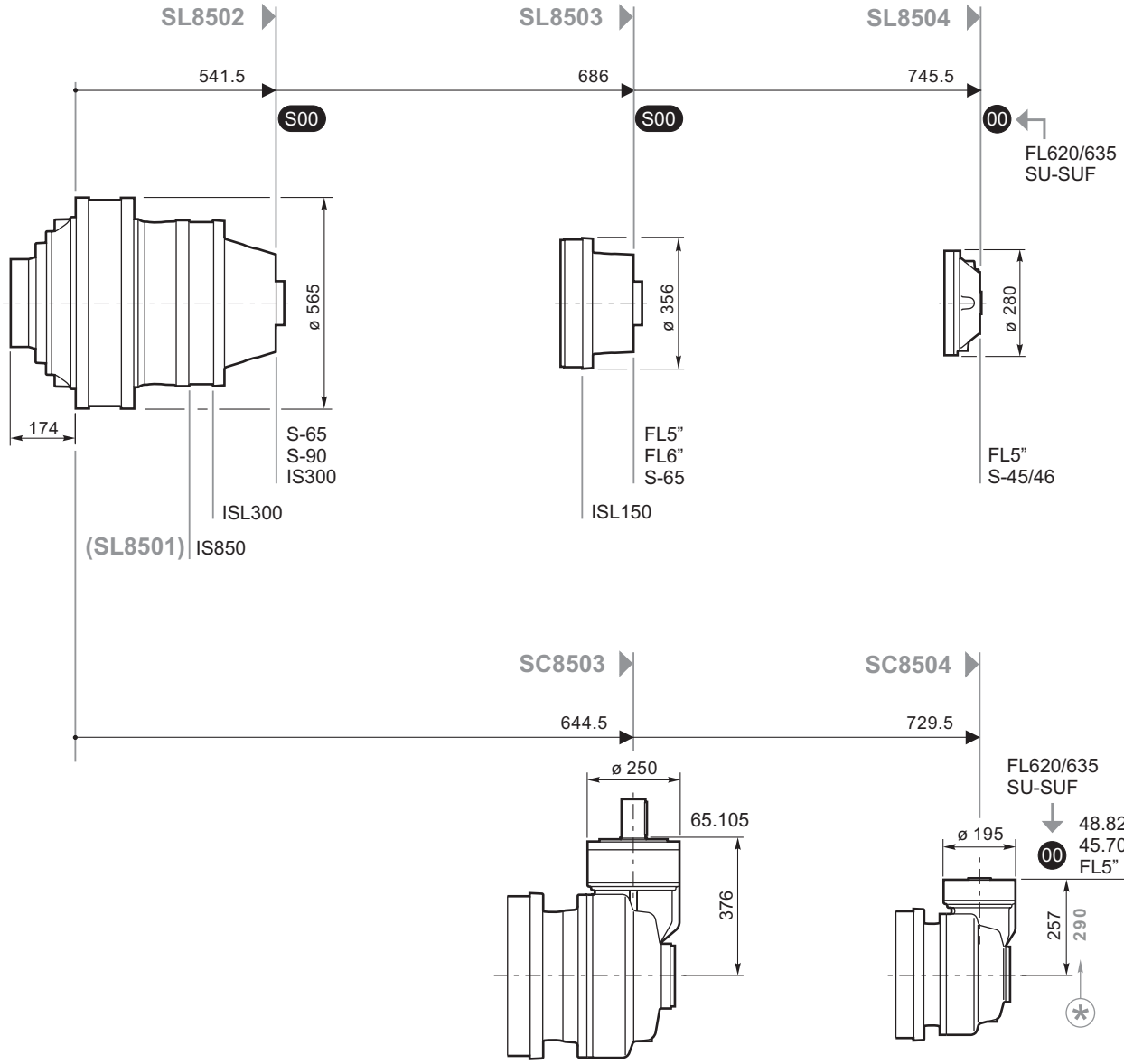


S850

i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SC8503											
42.89	35.0	34984	128	23.3	39509	96	11.7	48641	59	195000	
49.31	30.4	43093	137	20.3	48667	103	10.1	59916	64	195000	
57.69	26.0	50413	137	17.3	56933	103	8.7	70093	64	167000	
64.26	23.3	56153	137	15.6	63416	103	7.8	74415	61	167000	
73.23	20.5	64000	137	13.7	72278	103	6.8	88984	64	195000	
78.14	19.2	59130	119	12.8	60619	81	6.4	63253	42.4	195000	27
85.67	17.5	70803	130	11.7	72586	89	5.8	75740	46.3	167000	
100.3	14.9	58497	92	10.0	66064	69	5.0	76981	40.2	167000	
114.4	13.1	66672	92	8.7	75295	69	4.4	92699	42.4	195000	
128.9	11.6	56878	69	7.8	58311	47.4	3.9	61243	24.9	123000	
133.8	11.2	72766	85	7.5	74599	58	3.7	80404	31.5	167000	
164.1	9.1	71702	69	6.1	73508	46.9	3.0	76701	24.5	167000	
SC8504											
183.4*	8.2	71482	61	5.5	80727	46.1	2.7	99387	28.4	195000	
205.3*	7.3	79987	61	4.9	90333	46.1	2.4	103683	26.4	195000	
235.0*	6.4	89624	60	4.3	95292	42.5	2.1	105826	23.6	195000	
261.7*	5.7	91097	55	3.8	96859	38.8	1.9	107566	21.5	195000	
278.6*	5.4	91964	52	3.6	97780	36.7	1.8	108589	20.4	195000	
310.4*	4.8	93476	47.3	3.2	99388	33.5	1.6	110374	18.6	195000	
353.1*	4.2	95319	42.4	2.8	101348	30.1	1.4	112550	16.7	195000	
388.0*	3.9	96685	39.1	2.6	102800	27.7	1.3	114163	15.4	195000	
449.4	3.3	98860	34.6	2.2	105113	24.5	1.1	116732	13.6	195000	
493.8	3.0	100277	31.9	2.0	106619	22.6	1.0	118404	12.6	195000	20
561.8	2.7	102254	28.6	1.8	108721	20.3	0.89	120739	11.3	195000	
625.4	2.4	100991	25.4	1.6	110498	18.5	0.80	122712	10.3	195000	
687.0	2.2	105414	24.1	1.5	112082	17.1	0.73	124471	9.5	195000	
781.7	1.9	107492	21.6	1.3	114291	15.3	0.64	126925	8.5	195000	
916.0	1.6	100906	17.3	1.1	105302	12.0	0.55	116942	6.7	195000	
986.2	1.5	70555	11.2	1.0	75018	8.0	0.51	83310	4.4	123000	
1072	1.4	93281	13.7	0.93	99181	9.7	0.47	110144	5.4	167000	
1290	1.2	73483	8.9	0.77	78131	6.3	0.39	86768	3.5	123000	
1613	0.93	76006	7.4	0.62	80813	5.2	0.31	89746	2.9	123000	

* 54





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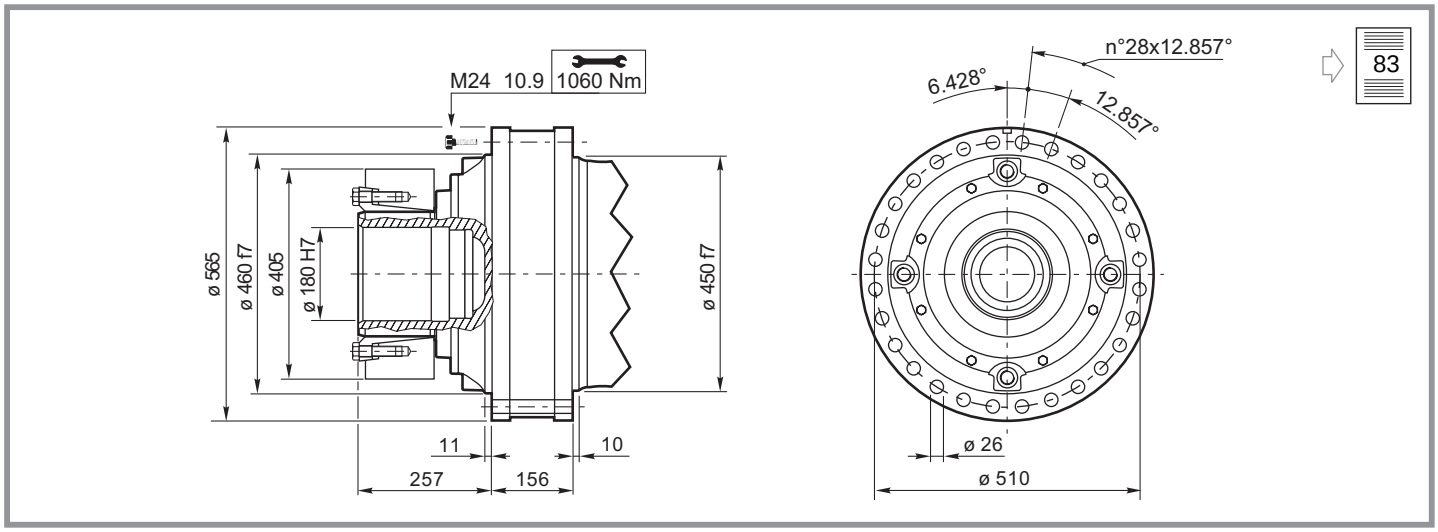
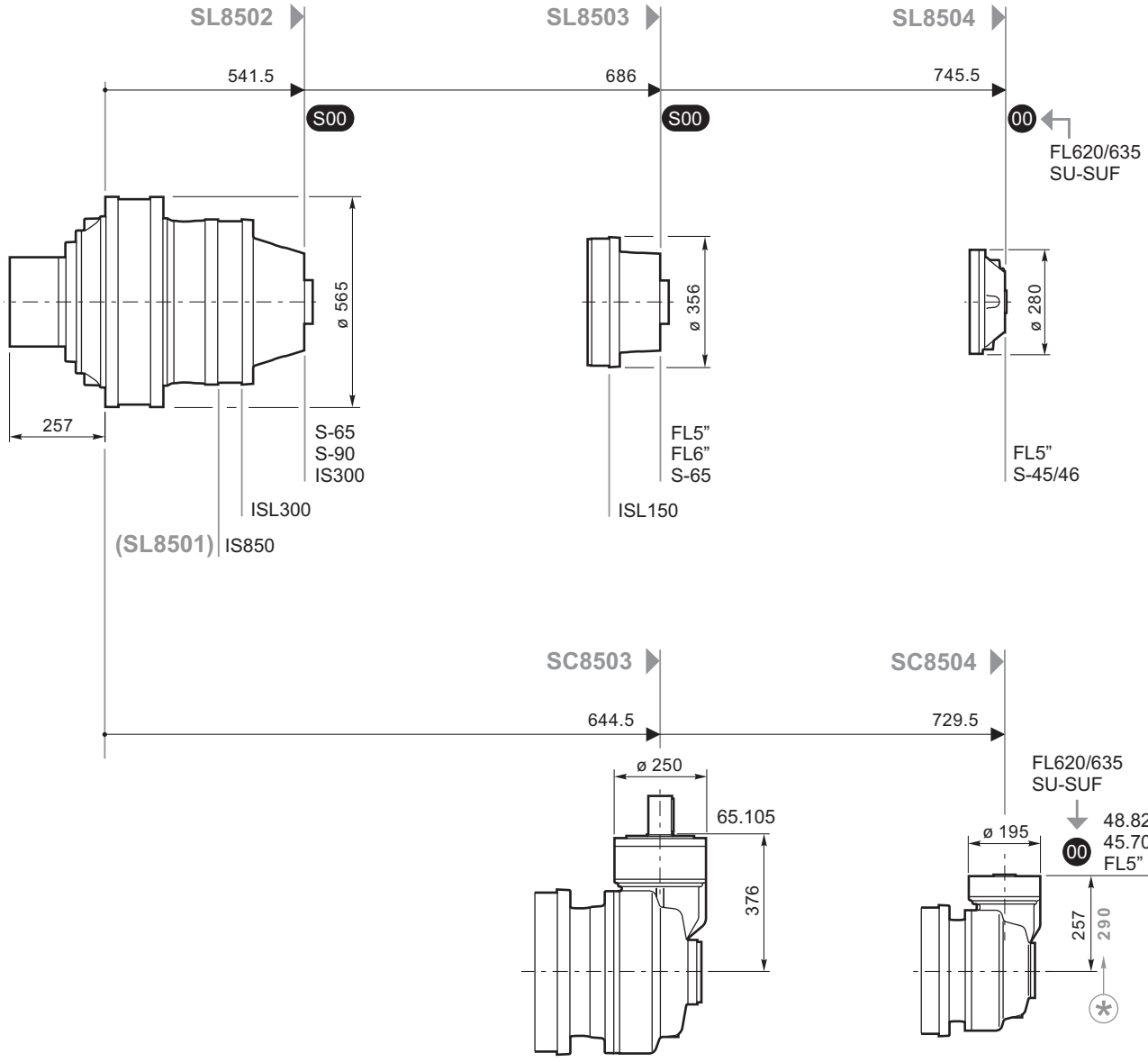
S00 91
FL620/635 FL5” FL6” SU-SUF S-45/46
S-65 S-90 ISL150 ISL300 IS300 IS850
54
65.105 48.82 45.70
55
49
IEC motor
55





00 91

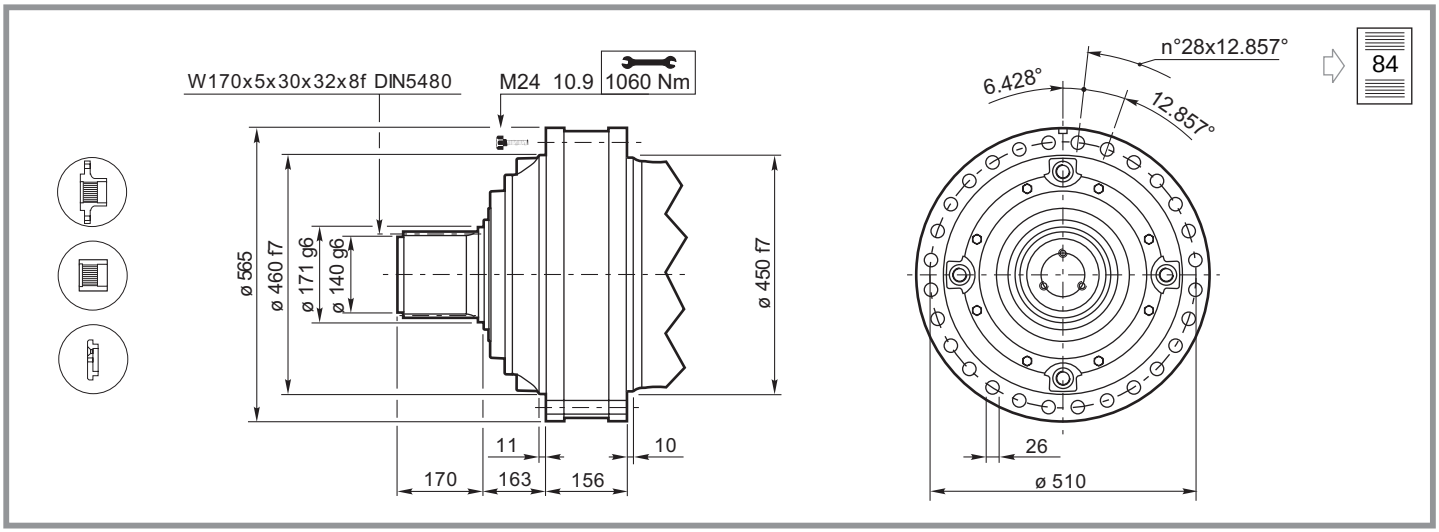
S00 91

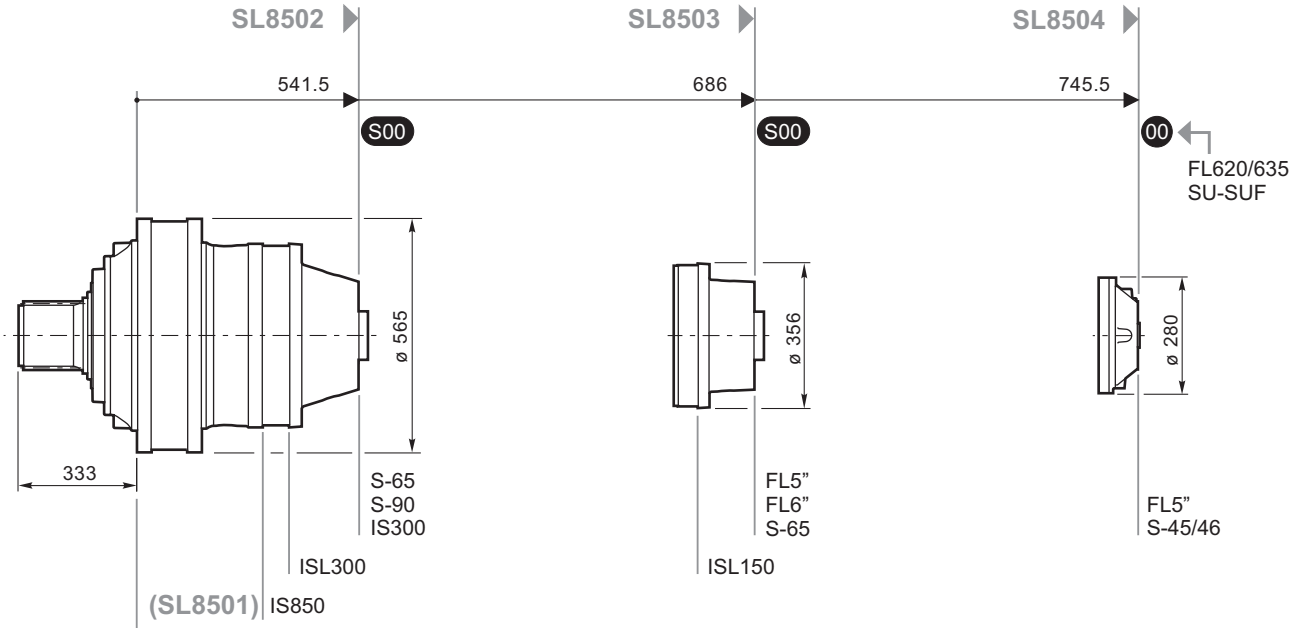
FL620/635 FL5” FL6” SU-SUF S-45/46 | S-65 S-90 ISL150 ISL300 IS300 IS850 54

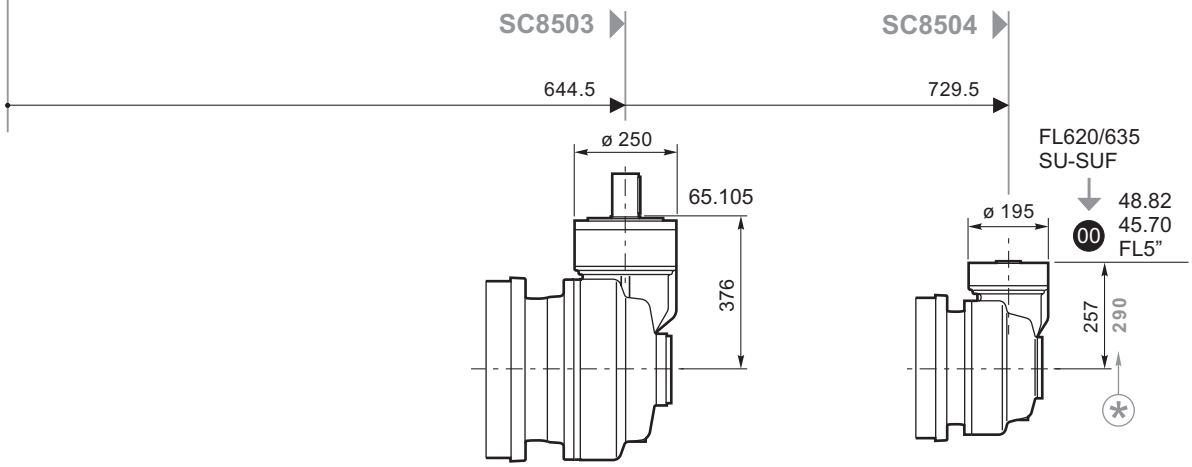
65.105 48.82 45.70 55

49

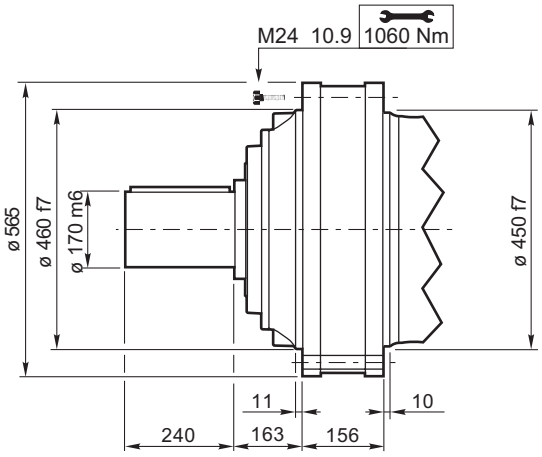
IEC motor 55

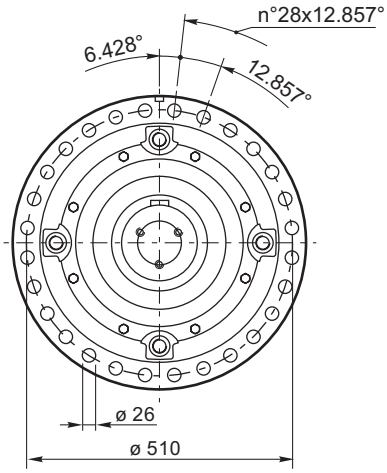






00 91 S00 91 FL620/635 FL5” FL6” SU-SUF S-45/46 S-65 S-90 ISL150 ISL300 IS300 IS850 54 65.105 48.82 45.70 55 49 IEC motor 55





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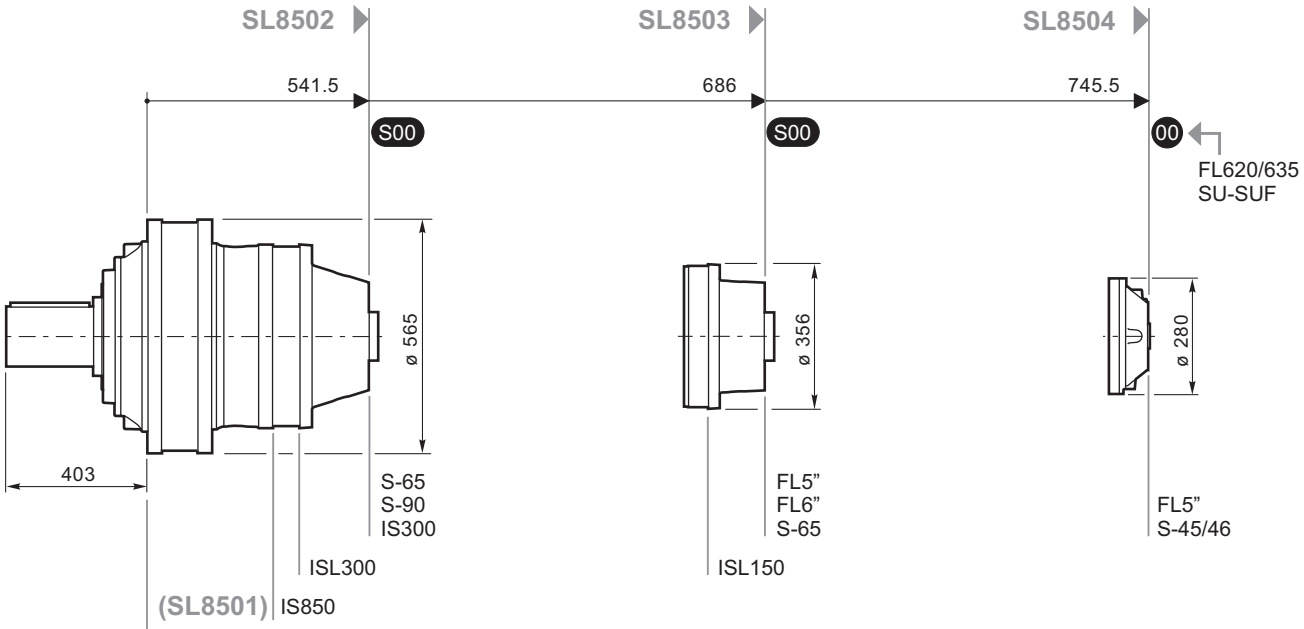
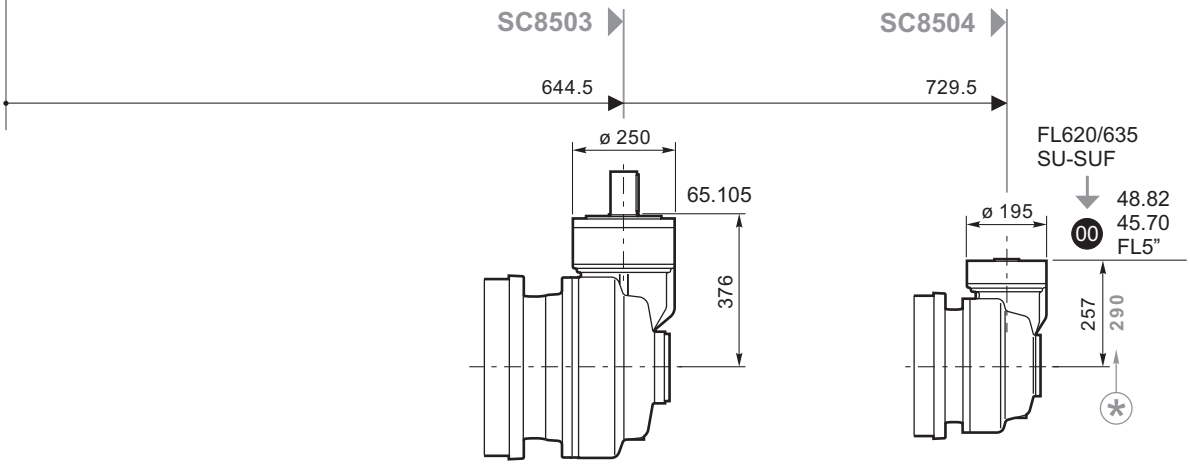
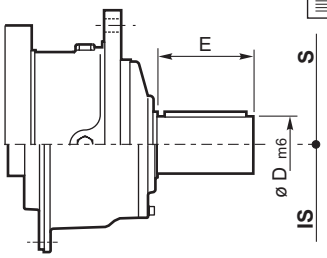




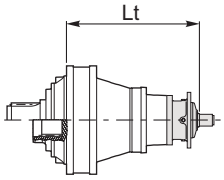
00 91
S00 91
FL620/635 FL5" FL6" SU-SUF S-45/46
S-65 S-90 ISL150 ISL300 IS300 IS850
54
65.105 48.82 45.70
55
49
IEC motor
55

S-45/46, S-65, S-90, ISL150, ISL300, IS300, IS850

86

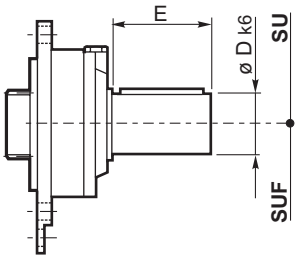


	S-45CR1	S-46C1	S-65CR1	S-90CR1	ISL150	ISL300	IS300	IS850
D m6	65	65	80	90	90	90	100	110
E	105	105	130	170	130	130	210	210
	Lt							
SL8501								578.5
SL8502			734	740		611.5	719.5	
SL8503			878		756			
SL8504	873.5	914.5	912					

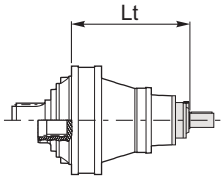


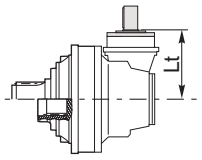
SU-SUF

87



	SU/SUF.1	SU/SUF.2	SU/SUF.3
D k6	28	40	48
E	50	58	82
	Lt		
SL8504	806.5	806.5	806.5
SC8504	317-350*	317-350*	317-350*





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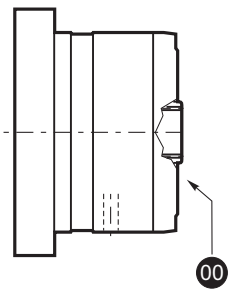
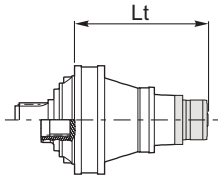
FL5”, FL6”

89



	FL250.4C FL250.6C	FL350.6C FL350.8C	FL450.6C FL450.8C	FL650.10C FL650.12C FL650.14C	FL750.10C FL750.12C FL750.14C	FL960.12C FL960.14C FL960.16C FL960.18C
	Lt					
SL8503	765	765	765	778.5	778.5	792.5
SL8504	851	851	851	864.5	864.5	878.5
SC8504	408.5-441.5*	408.5-441.5*	408.5-441.5*	422-455*	422-455*	



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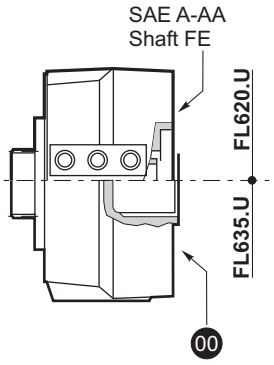
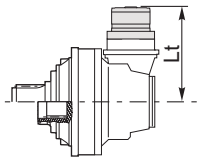
FL620/635

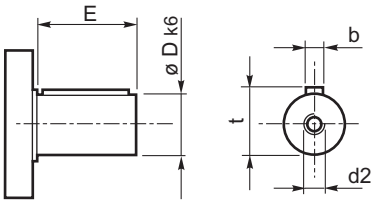
90



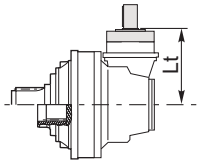
	FL620.U	FL635.U
	Lt	
SL8504	851	838
SC8504	361.5-394.5*	348.5-381.5*



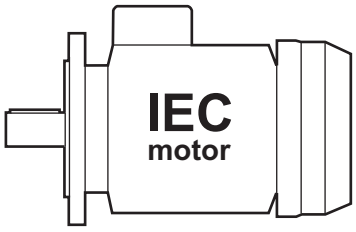
65.105, 48.82, 45.70



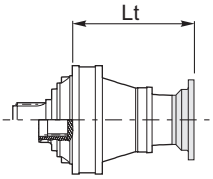
	65.105	48.82	45.70
D k6	65 m6	48	45
E	105	82	70
b	18	14	14
t	69	51.5	48.5
d2	M20x42	M10x22	M10x22
	Lt		
SC8503	376		
SC8504		317	307

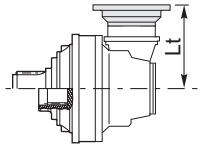


PAM IEC



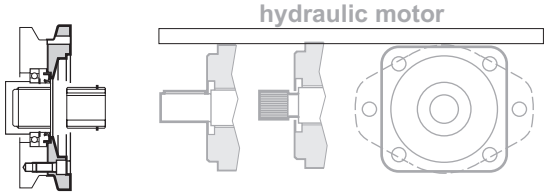
	IEC80-90	IEC100-112	IEC132	IEC160	IEC180	IEC200	IEC225
	Lt						
SL8503						761	791
SL8504		774.5	841.5	852.5	852.5	882.5	912.5
SC8504			352-385*	383-416*	383-416*	394-427*	424-457*





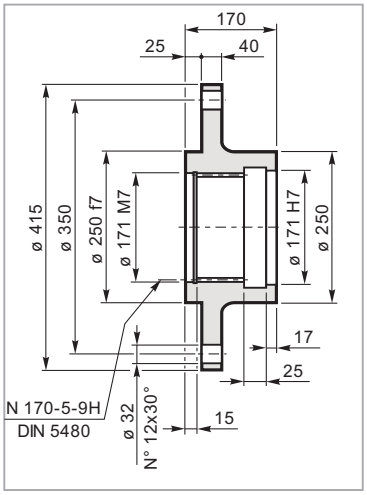
✱ 49

SAE J 744C, NEMA Adaptors



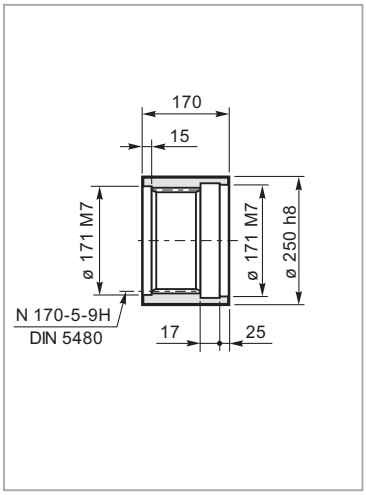
92

FR 800



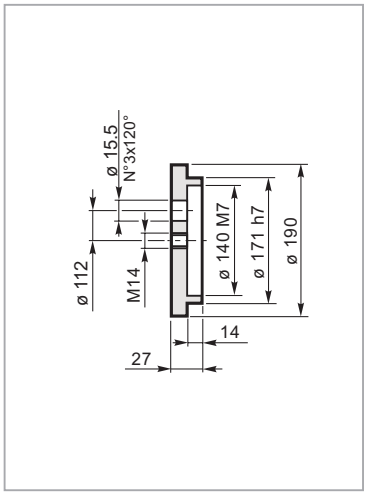
Mat. C40 UNI EN 10083
Code: 34704512800

MS 800



Mat. 39NiCrMo3 UNI EN 10083
Code: 39105830800

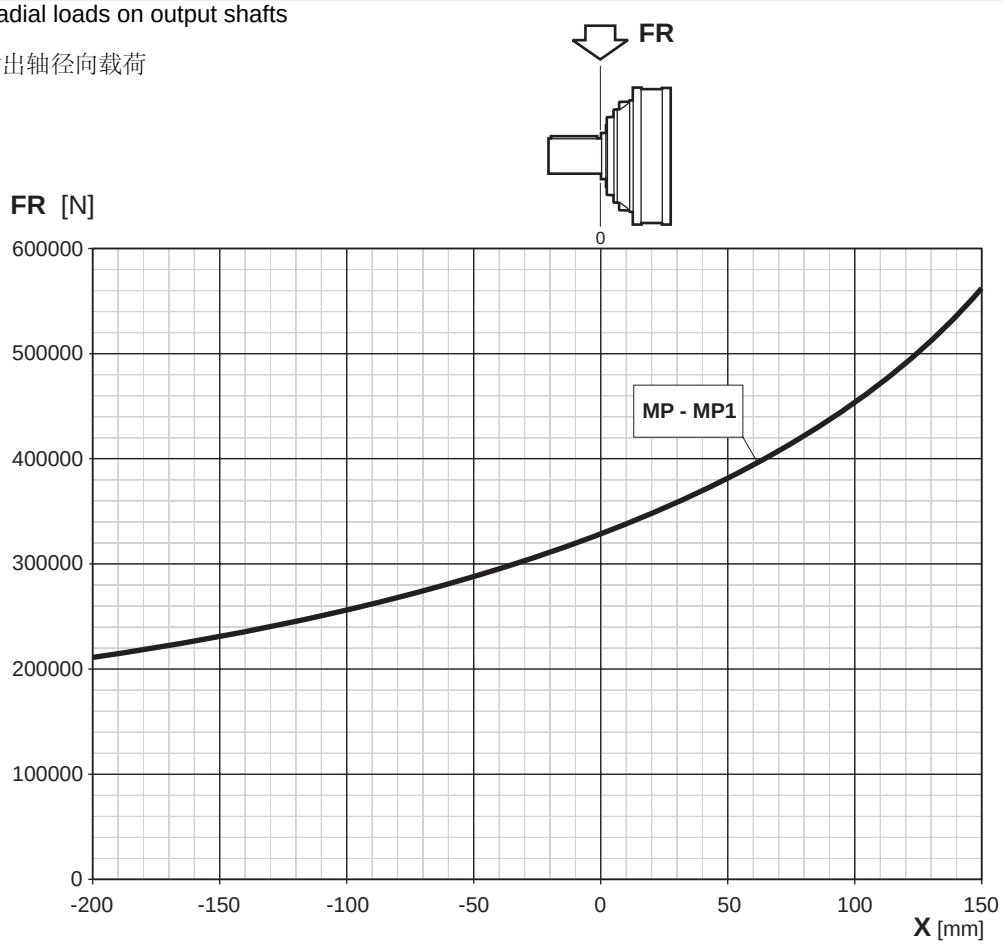
RDF S850

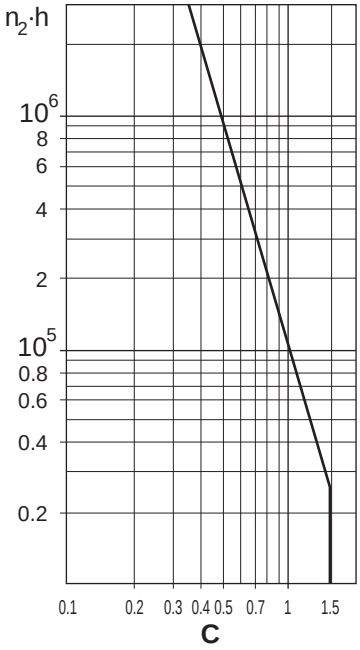


Mat. C40 UNI EN 10083
Code: 9001846

Radial loads on output shafts

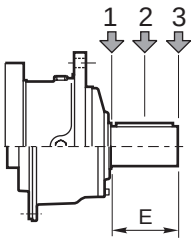
输出轴径向载荷



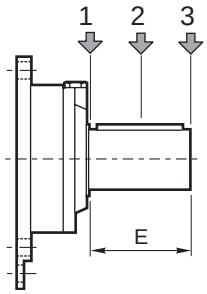


Radial loads on input shafts

输入轴径向载荷

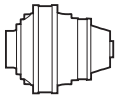


Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
S-45CR1	105	10000	6000	4000	5000	3000	2000
S-46C1	105	14000	8800	6400	7000	4400	3200
S-65CR1	130	23800	15500	9600	11900	7800	4800
S-90CR1	170	29700	17000	10000	14800	8500	5000
ISL150	130	7631	4302	2995	3824	2156	1501
ISL300	130	7631	4302	2995	3824	2156	1501
IS300	210	48814	33068	22914	24465	16573	11484
IS850	210	56261	39088	29352	28197	19590	14711



Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
SU1/SUF1	50	3000	2000	1500	1400	1000	700
SU2/SUF2	58	3000	2000	1500	1400	1000	700
SU3/SUF3	82	3000	1700	1200	1400	800	600

S1200

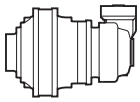


10000 HOURS LIFE

i_{eff}	n_1 [rpm] 1500			1000			500			T_{2MAX} [Nm]	P_T [kW]
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SL12001											
4.18							120	69101	866	293000	
4.89				*			102	71091	761	250000	
6.00							83	73904	645	198000	
SL12002											
17.47				57	86204	517	28.6	106129	318	293000	
20.44				48.9	90358	463	24.5	111244	285	293000	
25.08		*		39.9	96078	401	19.9	114009	238	293000	68
29.34				34.1	98845	353	17.0	106273	190	250000	
36.00				27.8	80734	235	13.9	84241	123	198000	
SL12003											
69.02	21.7	94108	214	14.5	106281	161	7.2	130847	99	293000	
80.74	18.6	110093	214	12.4	124333	161	6.2	134413	87	293000	
90.35	16.6	113692	198	11.1	128398	149	5.5	136718	79	293000	
99.07	15.1	115949	184	10.1	118870	126	5.0	124033	66	293000	
110.9	13.5	116752	165	9.0	119692	113	4.5	124892	59	293000	45
122.6	12.2	120165	154	8.2	131499	112	4.1	143187	61	293000	
143.5	10.5	109506	120	7.0	112264	82	3.5	121764	44.4	250000	
153.3	9.8	114796	118	6.5	117688	80	3.3	122800	41.9	293000	
188.1	8.0	120601	101	5.3	123639	69	2.7	129009	35.9	293000	
220.1	6.8	112418	80	4.5	116972	56	2.3	129902	30.9	250000	
SL12004											
241.6	6.2	134358	87	4.1	142856	62	2.1	158647	34.4	293000	
282.6	5.3	137584	76	3.5	146286	54	1.8	162456	30.1	293000	
316.2	4.7	139944	70	3.2	148795	49.3	1.6	165242	27.4	293000	
366.9	4.1	143128	61	2.7	152181	43.4	1.4	169002	24.1	293000	
414.1	3.6	145770	55	2.4	154990	39.2	1.2	172123	21.8	293000	
463.4	3.2	148270	50	2.2	157648	35.6	1.1	175075	19.8	293000	
524.2	2.9	151062	45.3	1.9	160616	32.1	1.0	174027	17.4	293000	
542.1	2.8	151831	44.0	1.8	161434	31.2	0.92	179278	17.3	293000	
629.0	2.4	155285	38.8	1.6	165107	27.5	0.79	175984	14.6	293000	31
735.8	2.0	159014	33.9	1.4	169072	24.1	0.68	187761	13.4	293000	
778.1	1.9	133173	26.9	1.3	141596	19.1	0.64	157247	10.6	250000	
896.7	1.7	136061	23.8	1.1	144667	16.9	0.56	158567	9.3	250000	
952.8	1.6	137316	22.6	1.0	146001	16.0	0.52	162140	8.9	250000	
1100	1.4	140337	20.0	0.91	149213	14.2	0.45	165707	7.9	250000	
1296	1.2	110097	13.3	0.77	117061	9.5	0.39	130000	5.3	198000	
1350	1.1	110779	12.9	0.74	117786	9.1	0.37	130806	5.1	198000	
1620	0.93	113877	11.0	0.62	121079	7.8	0.31	134463	4.3	198000	

(*)Please consult YIY

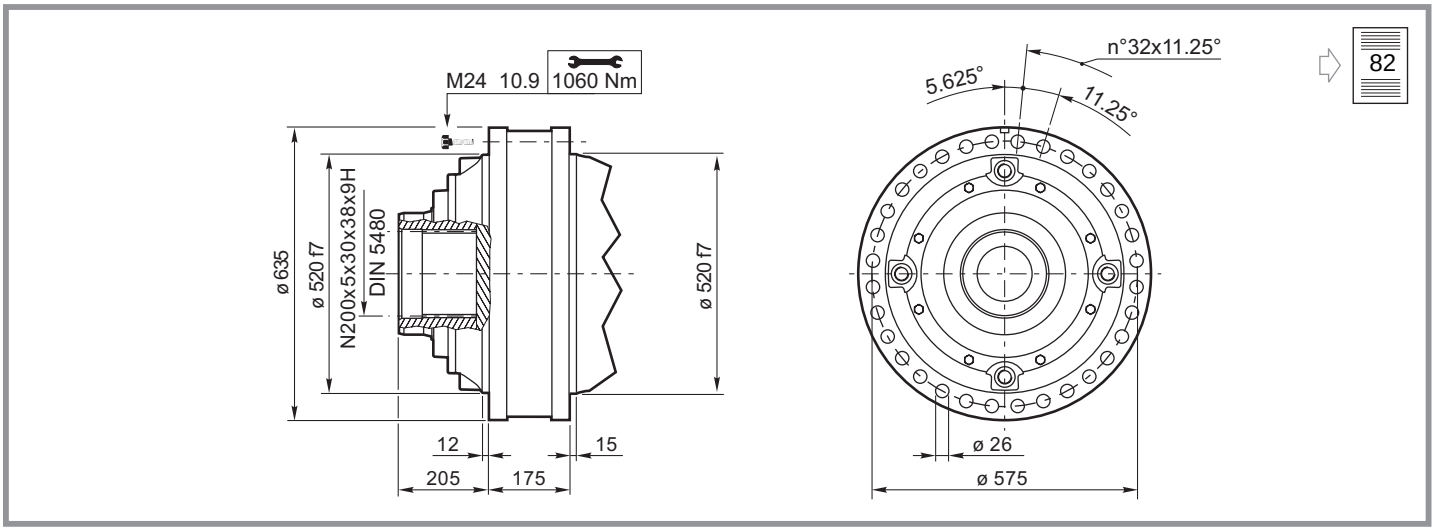
请咨询 YIY 公司

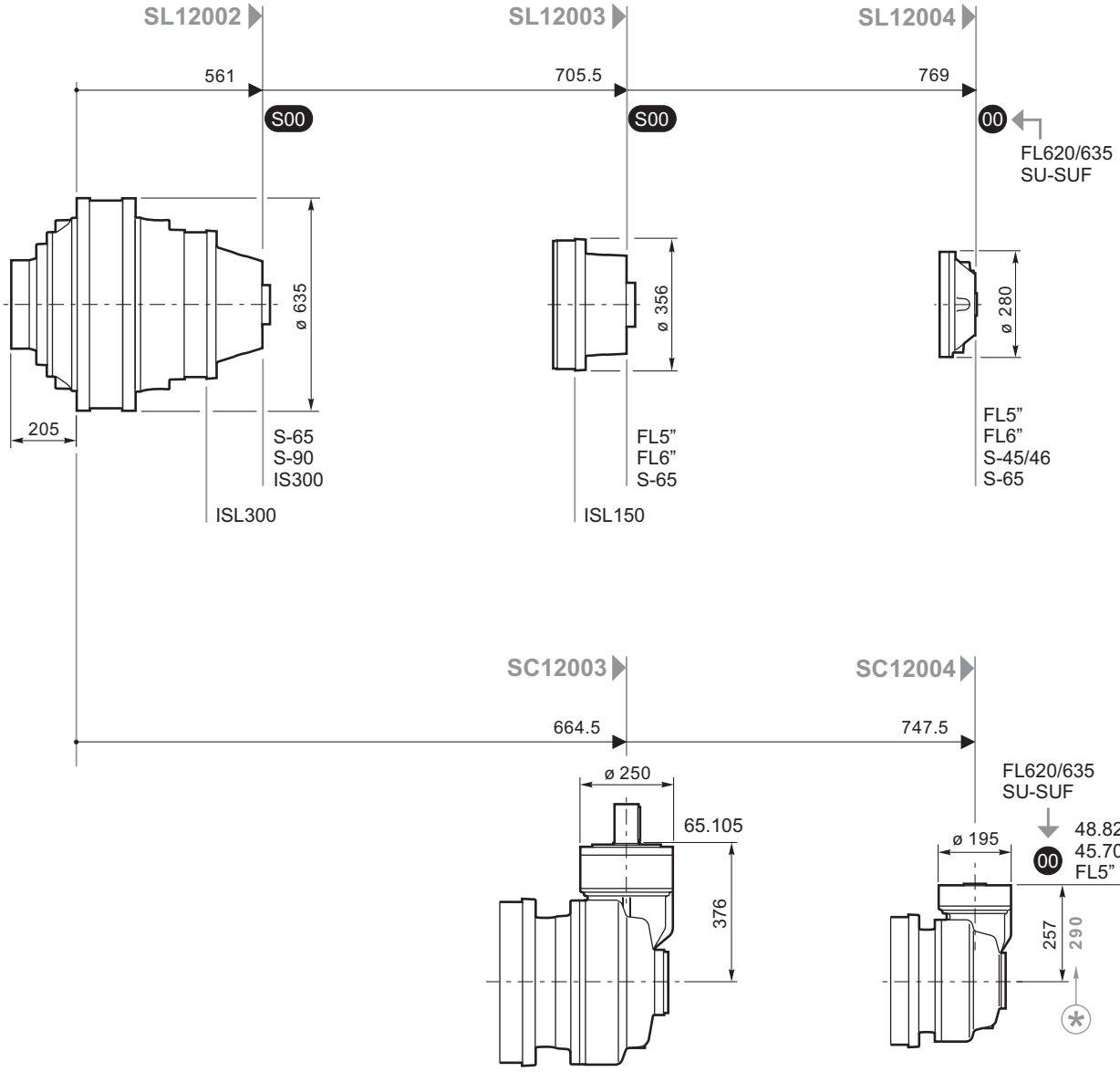


S1200

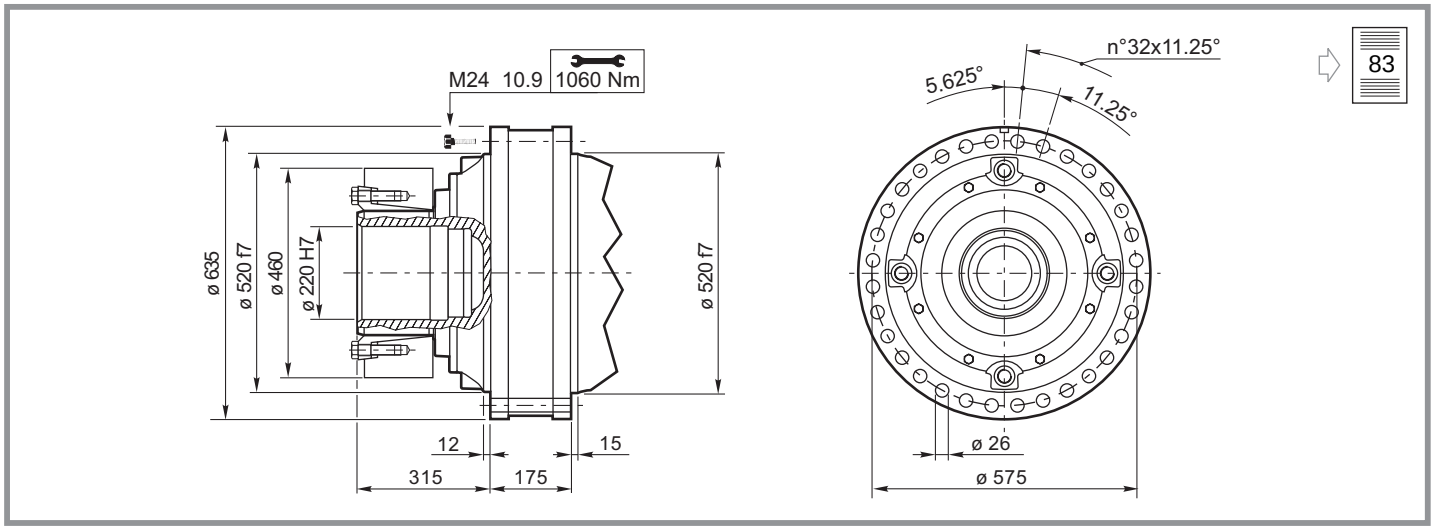
i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SC12003											
44.38	33.8	36196	128	22.5	40878	96	11.3	50327	59	293000	35
51.02	29.4	44586	137	19.6	50353	103	9.8	61992	64	293000	
63.70	23.5	51956	128	15.7	58676	96	7.8	72239	59	293000	
73.23	20.5	64000	137	13.7	72278	103	6.8	87992	63	198000	
79.67	18.8	46448	92	12.6	52456	69	6.3	64580	42.4	293000	
85.67	17.5	74871	137	11.7	84555	103	5.8	104099	64	250000	
114.4	13.1	66672	92	8.7	75296	69	4.4	90431	41.4	198000	
133.8	11.2	77996	92	7.5	87505	68	3.7	92210	36.1	198000	
SC12004											
222.0*	6.8	86521	61	4.5	97712	46.1	2.3	120298	28.4	250000	28
259.7*	5.8	101217	61	3.8	114309	46.1	1.9	133202	26.9	250000	
290.7*	5.2	113260	61	3.4	122001	44.0	1.7	135486	24.4	250000	
304.8*	4.9	118792	61	3.3	127356	43.7	1.6	132888	22.8	293000	
337.3*	4.4	131424	61	3.0	148424	46.1	1.5	166861	25.9	293000	
413.8*	3.6	126578	48.0	2.4	129766	32.8	1.2	135403	17.1	293000	
458.7	3.3	103033	35.3	2.2	108637	24.8	1.1	113356	12.9	293000	
517.3	2.9	128323	39.0	1.9	131555	26.6	0.97	137659	13.9	293000	
536.6	2.8	120534	35.3	1.9	127089	24.8	0.93	132610	12.9	293000	
658.4	2.3	130235	31.1	1.5	133515	21.2	0.76	142774	11.4	293000	
732.8	2.0	118349	25.4	1.4	133657	19.1	0.68	145107	10.4	293000	
770.2	1.9	132966	27.1	1.3	141376	19.2	0.65	157004	10.7	250000	
873.4	1.7	135520	24.4	1.1	144092	17.3	0.57	158310	9.5	250000	
1072	1.4	139779	20.5	0.93	148620	14.5	0.47	165048	8.1	250000	

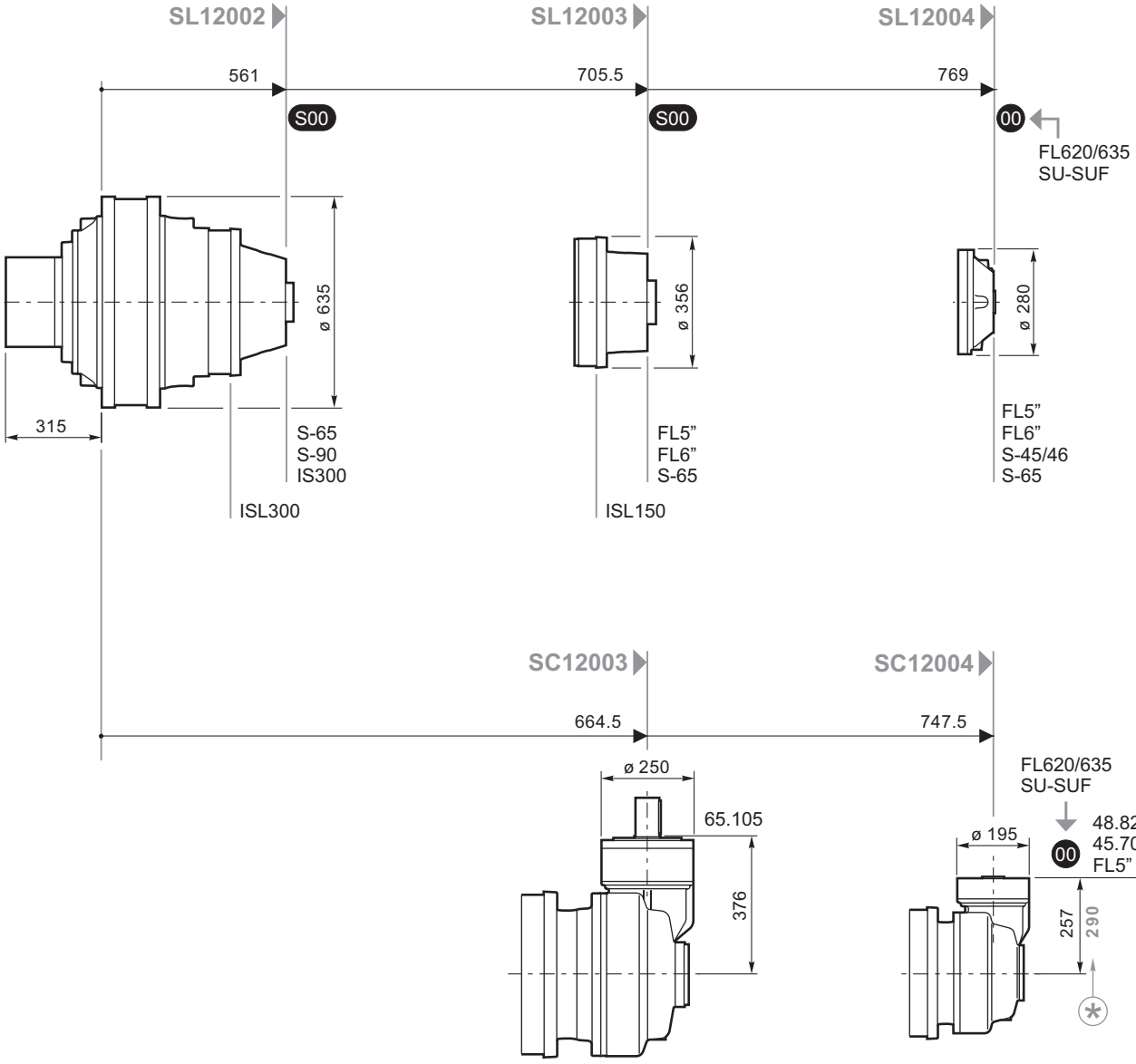
* 62





00 91
S00 91
FL620/635 S-65
FL5” S-90
FL6” ISL150
SU-SUF ISL300
S-45/46 IS300
62
65.105 63
48.82
45.70
59
IEC motor 63

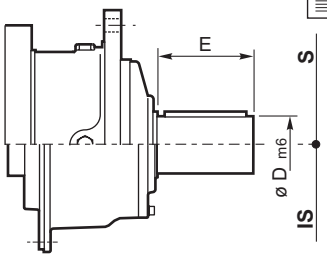




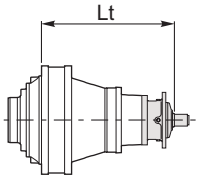
00 91 S00 91 FL620/635 FL5” FL6” SU-SUF S-45/46 S-65 S-90 ISL150 ISL300 IS300 62 65.105 48.82 45.70 63 59 IEC motor 63

S-45/46, S-65, S-90, ISL150, ISL300, IS300

86

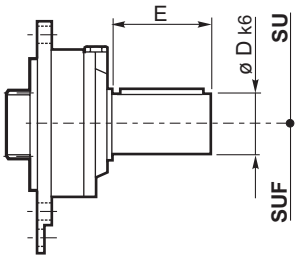


	S-45CR1	S-46C1	S-65CR1	S-90CR1	ISL150	ISL300	IS300
D m6	65	65	80	90	90	90	100
E	105	105	130	170	130	130	210
	Lt						
SL12002			753.5	759.5		631	739
SL12003			897.5		775.5		
SL12004	893	934	931.5				

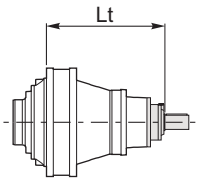


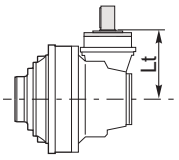
SU-SUF

87



	SU/SUF.1	SU/SUF.2	SU/SUF.3
D k6	28	40	48
E	50	58	82
	Lt		
SL12004	826	826	826
SC12004	317-350*	317-350*	317-350*

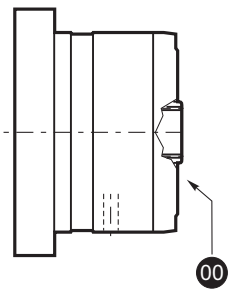




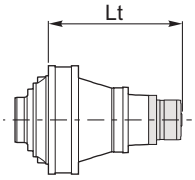
59

FL5”, FL6”

89



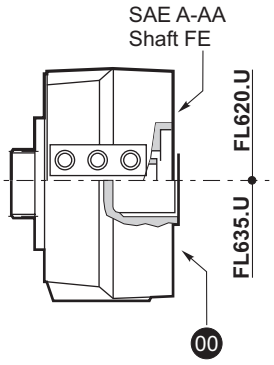
	FL250.4C FL250.6C	FL350.6C FL350.8C	FL450.6C FL450.8C	FL650.10C FL650.12C FL650.14C	FL750.10C FL750.12C FL750.14C	FL960.12C FL960.14C FL960.16C FL960.18C
	Lt					
SL12003	784.5	784.5	784.5	798	798	812
SL12004	870.5	870.5	870.5	884	884	898
SC12004	408.5-441.5*	408.5-441.5*	408.5-441.5*	422-455*	422-455*	



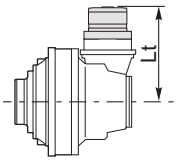
59

FL620/635

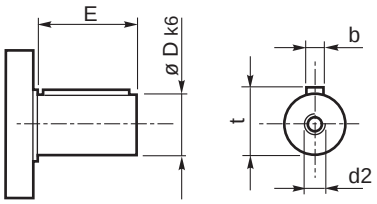
90



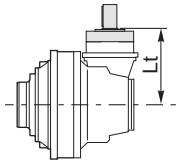
	FL620.U	FL635.U
	Lt	
SL12004	870.5	857.5
SC12004	361.5-394.5*	348.5-381.5



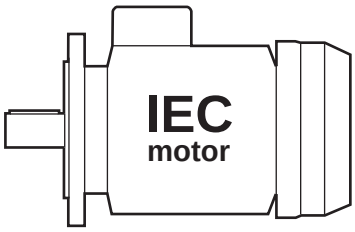
65.105, 48.82, 45.70



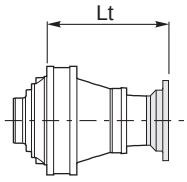
	65.105	48.82	45.70
D k6	65 m6	48	45
E	105	82	70
b	18	14	14
t	69	51.5	48.5
d2	M20x42	M10x22	M10x22
	Lt		
SC12003	376		
SC12004		317	307

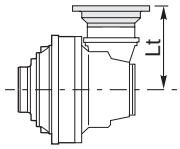


PAM IEC



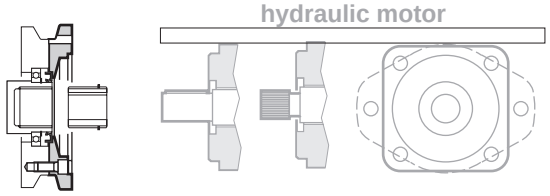
	IEC80-90	IEC100-112	IEC132	IEC160	IEC180	IEC200	IEC225
	Lt						
SL12004			861	872	872	902	932
SC12004				383-416*	383-416*	394-427*	424-457*





* 59

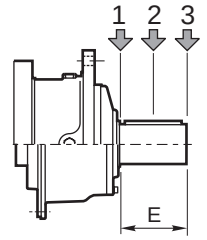
SAE J 744C, NEMA Adaptors



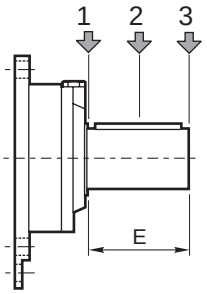
92

Radial loads on input shafts

输入轴径向载荷

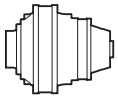


Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
S-45CR1	105	10000	6000	4000	5000	3000	2000
S-46C1	105	14000	8800	6400	7000	4400	3200
S-65CR1	130	23800	15500	9600	11900	7800	4800
S-90CR1	170	29700	17000	10000	14800	8500	5000
ISL150	130	7631	4302	2995	3824	2156	1501
ISL300	130	7631	4302	2995	3824	2156	1501
IS300	210	48814	33068	22914	24465	16573	11484



Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
SU1/SUF1	50	3000	2000	1500	1400	1000	700
SU2/SUF2	58	3000	2000	1500	1400	1000	700
SU3/SUF3	82	3000	1700	1200	1400	800	600

S1800

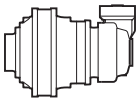


10000 HOURS LIFE

i_{eff}	n_1 [rpm] 1500			1000			500			T_{2MAX} [Nm]	P_T [kW]
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SL18001											
4.18							120	95462	1196	390000	
4.89			*				102	98212	1052	354000	
6.00							83	102096	891	284000	
SL18002											
17.47				57	111413	668	28.6	137165	411	390000	
20.44				48.9	122520	628	24.5	148268	380	354000	75
23.91			*	41.8	128424	562	20.9	149702	328	354000	
29.34				34.1	136553	487	17.0	151592	271	354000	
SL18003											
70.59	21.3	134034	298	14.2	151371	225	7.1	186360	138	390000	
82.58	18.2	154298	294	12.1	174257	221	6.1	191895	122	390000	
91.98	16.3	159208	272	10.9	179801	205	5.4	195050	111	390000	
104.7	14.3	162452	244	9.6	183464	184	4.8	198896	100	390000	
112.9	13.3	154324	215	8.9	158211	147	4.4	165083	77	390000	54
122.6	12.2	168189	215	8.2	187096	160	4.1	203725	87	390000	
143.5	10.5	156205	171	7.0	160139	117	3.5	173690	63	354000	
162.0	9.3	123329	120	6.2	126436	82	3.1	135546	43.8	284000	
184.6	8.1	159053	135	5.4	163058	93	2.7	170142	48.3	390000	
215.9	6.9	160172	117	4.6	166380	81	2.3	184770	44.8	354000	
SL18004											
288.0	5.2	196317	107	3.5	208734	76	1.7	231806	42.1	390000	
320.8	4.7	199545	98	3.1	212166	69	1.6	235618	38.5	390000	
365.0	4.1	203479	88	2.7	216349	62.1	1.4	240264	34.5	390000	
417.0	3.6	207622	78	2.4	219397	55.1	1.2	230314	28.9	390000	
464.5	3.2	211036	71	2.2	220853	49.8	1.1	234101	26.4	390000	
519.8	2.9	214655	65	1.9	228231	46.0	1.0	253460	25.5	390000	
571.4	2.6	217755	59.9	1.7	223678	41.0	0.87	241554	22.1	390000	
619.1	2.4	220407	55.9	1.6	234347	39.6	0.81	260252	22.0	390000	
725.5	2.1	225758	48.9	1.4	240038	34.7	0.69	265630	19.2	390000	38
778.3	1.9	228172	46.1	1.3	242603	32.6	0.64	269421	18.1	390000	
912.1	1.6	233712	40.3	1.1	248494	28.5	0.55	269387	15.5	390000	
1041	1.4	205734	31.0	1.0	210916	21.2	0.48	220078	11.1	390000	
1067	1.4	226703	33.4	0.94	239056	23.5	0.47	265481	13.0	390000	
1309	1.1	208643	25.0	0.76	213898	17.1	0.38	223190	8.9	390000	
1409	1.1	159231	17.7	0.71	169302	12.6	0.35	188017	7.0	284000	
1531	1.0	210444	21.6	0.65	223754	15.3	0.33	248487	8.5	354000	
1879	0.80	213738	17.9	0.53	227256	12.7	0.27	252377	7.0	354000	
2305	0.65	171533	11.7	0.43	182382	8.3	0.22	202542	4.6	284000	

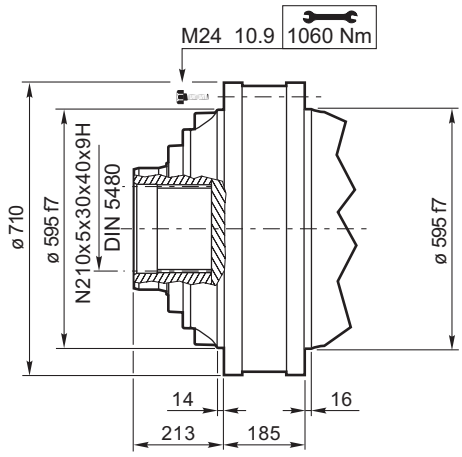
(*)Please consult YIY

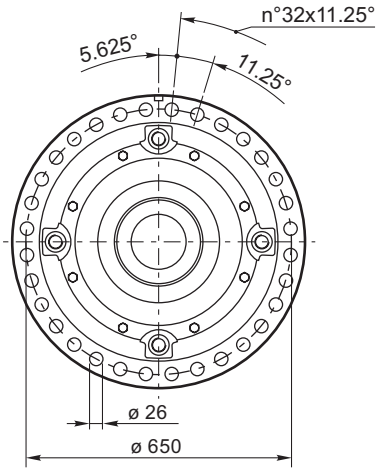
请咨询 YIY 公司



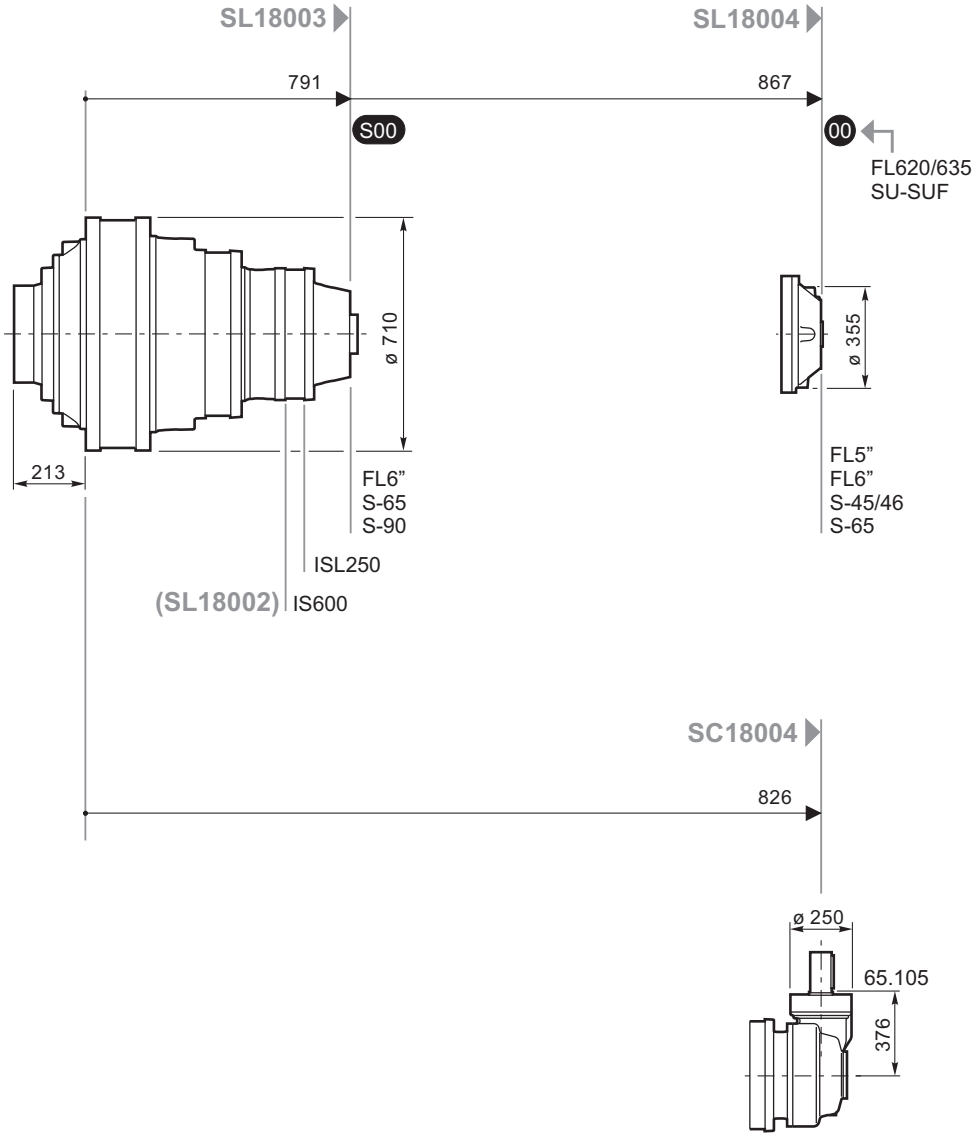
S1800

i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SC18004											
179.3	8.4	146232	128	5.6	165146	96	2.8	203320	59	390000	
206.1	7.3	180128	137	4.9	198435	101	2.4	220369	56	390000	
233.6	6.4	190201	128	4.3	202231	91	2.1	220933	49.5	390000	
261.2	5.7	191516	115	3.8	205674	82	1.9	228409	45.8	390000	
268.6	5.6	194255	114	3.7	206541	81	1.9	222831	43.4	390000	
311.5	4.8	198660	100	3.2	211226	71	1.6	224867	37.8	390000	
358.5	4.2	202930	89	2.8	215766	63	1.4	239615	35.0	390000	
358.5	4.2	202930	89	2.8	215766	63	1.4	239615	35.0	390000	
419.4	3.6	207804	78	2.4	219474	55	1.2	230515	28.8	390000	30
439.3	3.4	195127	70	2.3	200042	47.7	1.1	208731	24.9	390000	
478.0	3.1	211956	70	2.1	225361	49.4	1.0	250273	27.4	390000	
559.2	2.7	217045	61	1.8	223382	41.8	0.89	240767	22.5	390000	
654.2	2.3	185046	44.4	1.5	196750	31.5	0.76	218498	17.5	354000	
686.0	2.2	200536	45.9	1.5	205587	31.4	0.73	214518	16.4	390000	
802.7	1.9	190861	37.3	1.2	202933	26.5	0.62	221918	14.5	354000	
984.7	1.5	196851	31.4	1.0	209302	22.3	0.51	228883	12.2	354000	
1208	1.2	155564	20.2	0.83	165404	14.3	0.41	183687	8.0	284000	

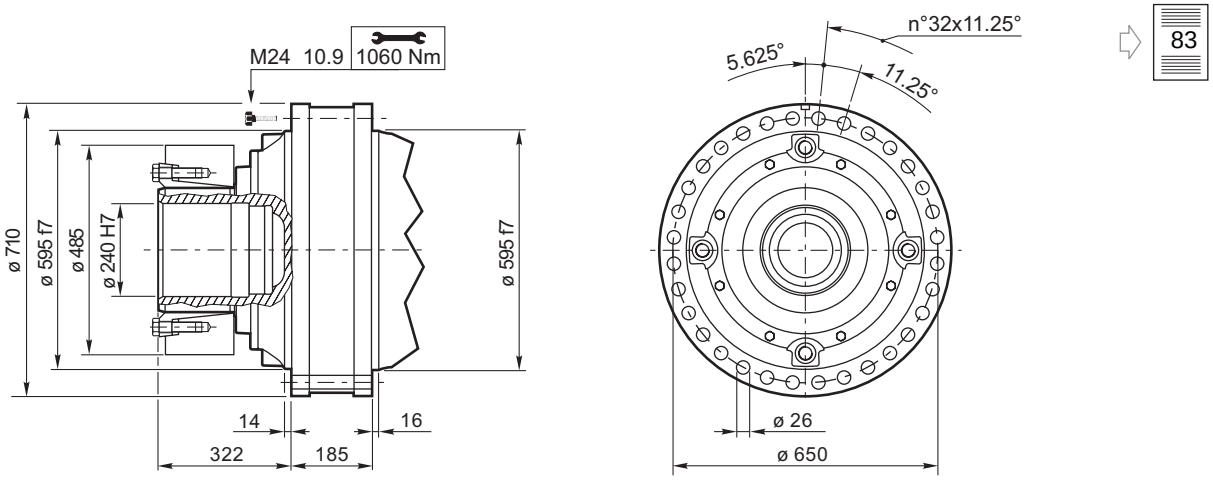


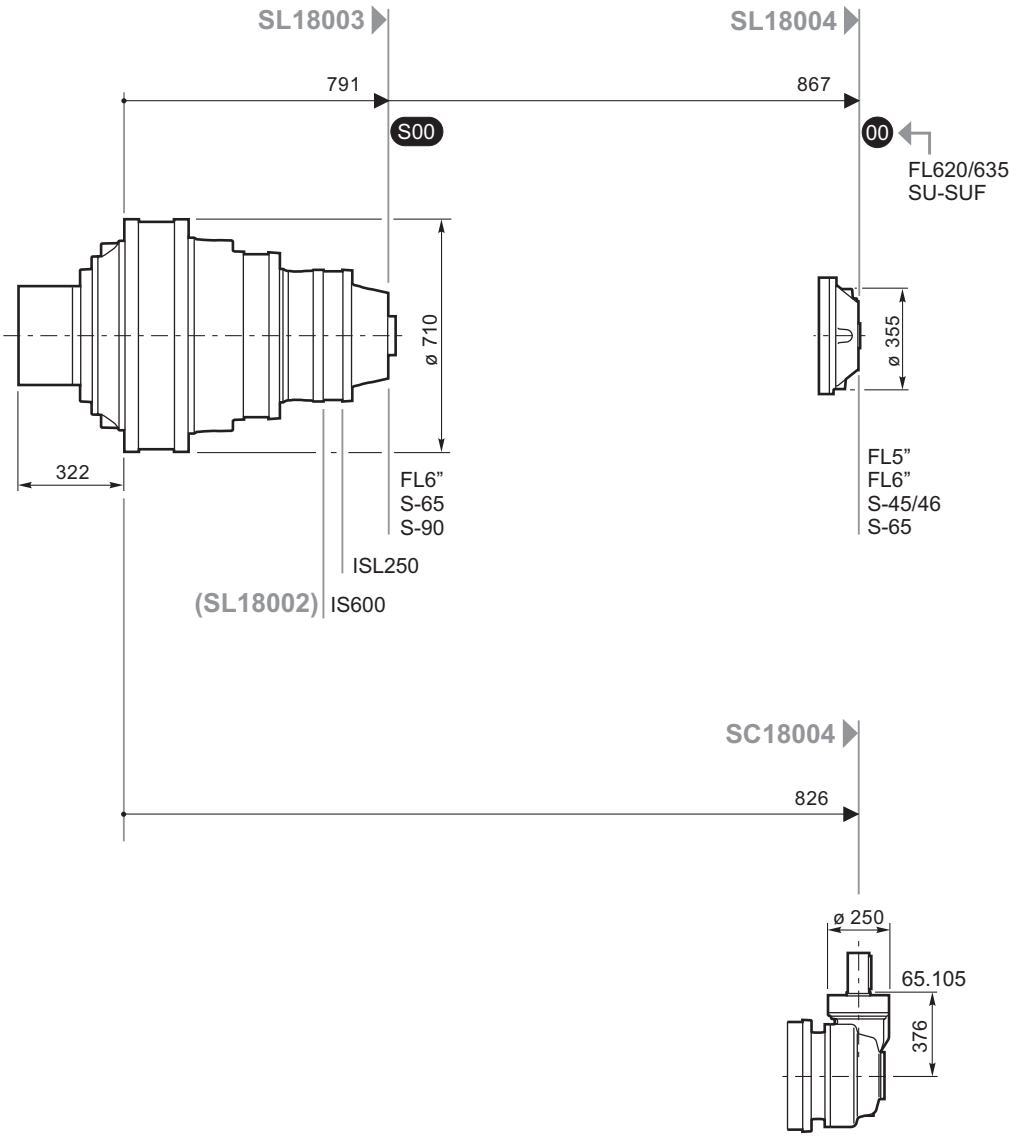


82



00 91
S00 91
FL620/635 FL5” FL6” SU-SUF
S-45/46 S-65 S-90 ISL250 IS600 68
65.105 69
IEC motor 69

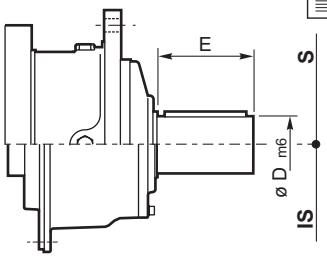




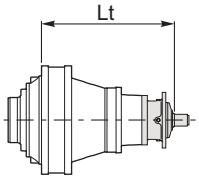
00 91 S00 91 FL620/635 FL5” FL6” SU-SUF S-45/46 S-65 S-90 ISL250 IS600 68 65.105 69 IEC motor 69

S-45/46, S-65, S-90, ISL250, IS600

86

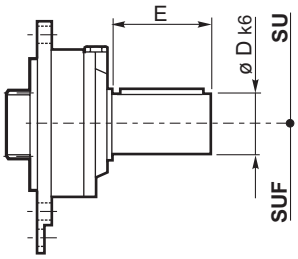


	S-45CR1	S-46C1	S-65CR1	S-90CR1	ISL250	IS600
D m6	65	65	80	90	90	110
E	105	105	130	170	130	210
	Lt					
SL18002						805
SL18003			983.5	989.5	861	
SL18004	992	1033	1031			

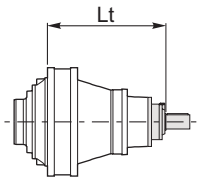


SU-SUF

87

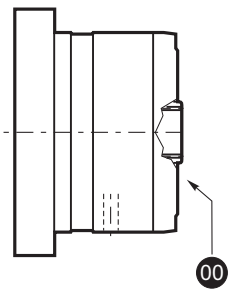


	SU/SUF.1	SU/SUF.2	SU/SUF.3
D k6	28	40	48
E	50	58	82
	Lt		
SL18004	922	922	922

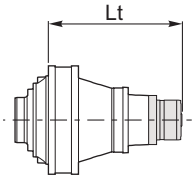


FL5”, FL6”

89

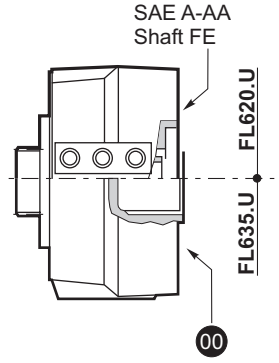


	FL250.4C FL250.6C	FL350.6C FL350.8C	FL450.6C FL450.8C	FL650.10C FL650.12C FL650.14C	FL750.10C FL750.12C FL750.14C	FL960.12C FL960.14C FL960.16C FL960.18C
	Lt					
SL18003						911
SL18004	962	962	962	975.5	975.5	989.5



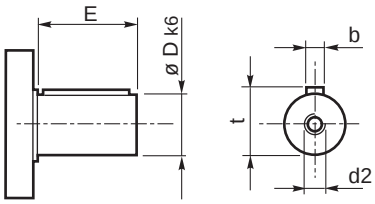
FL620/635

90

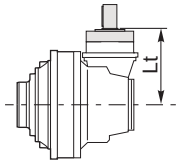


	FL620.U	FL635.U
	Lt	
SL18004	966.5	953.5

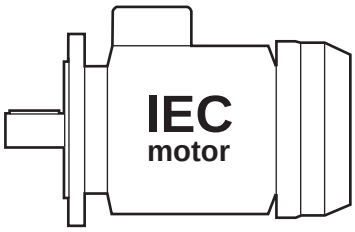
65.105



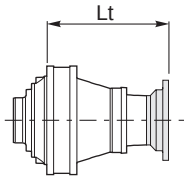
	65.105
D k6	65 m6
E	105
b	18
t	69
d2	M20x42
	Lt
SC18004	376



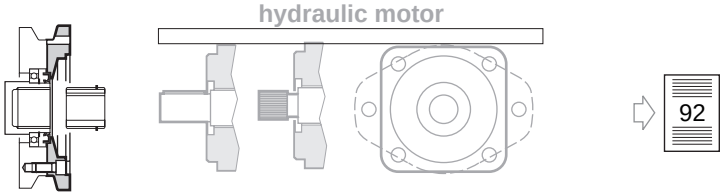
PAM IEC



	IEC80-90	IEC100-112	IEC132	IEC160	IEC180	IEC200	IEC225
	Lt						
SL18004			957	962	962	1001	1029

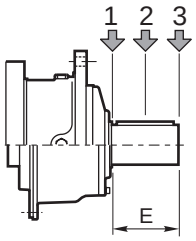


SAE J 744C, NEMA Adaptors

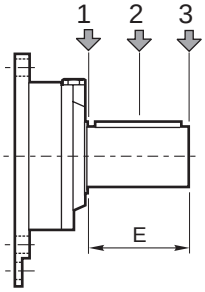


Radial loads on input shafts

输入轴径向载荷

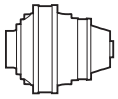


Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
S-45CR1	105	10000	6000	4000	5000	3000	2000
S-46C1	105	14000	8800	6400	7000	4400	3200
S-65CR1	130	23800	15500	9600	11900	7800	4800
S-90CR1	170	29700	17000	10000	14800	8500	5000
ISL250	130	7631	4302	2995	3824	2156	1501
IS600	210	54366	36909	26346	27248	18498	13204



Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
SU1/SUF1	50	3000	2000	1500	1400	1000	700
SU2/SUF2	58	3000	2000	1500	1400	1000	700
SU3/SUF3	82	3000	1700	1200	1400	800	600

S2500

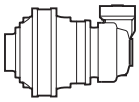


10000 HOURS LIFE

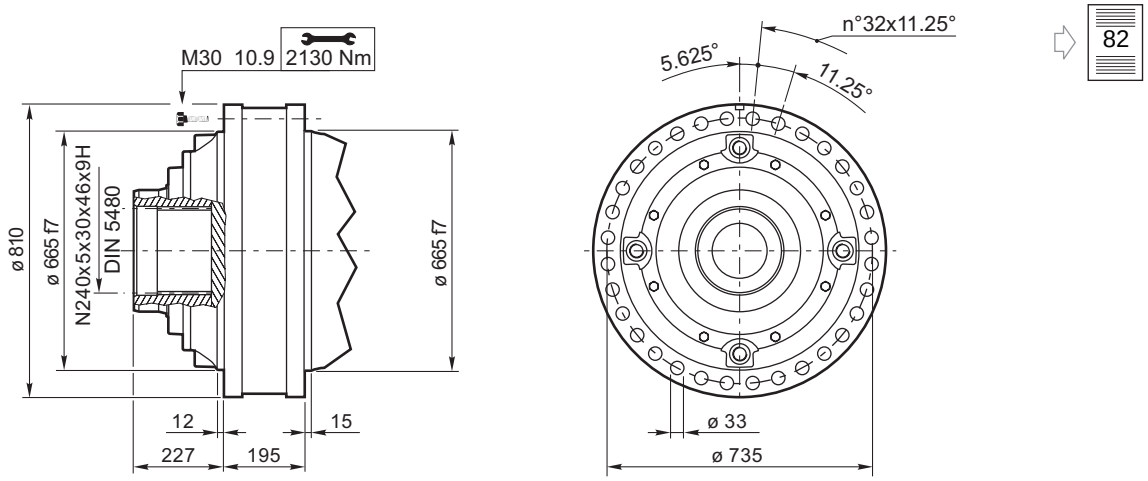
ieff	n1 [rpm] 1500 n2 [rpm]	1500 T2 [Nm]	1500 P2 [kW]	1000 n2 [rpm]	1000 T2 [Nm]	1000 P2 [kW]	500 n2 [rpm]	500 T2 [Nm]	500 P2 [kW]	T2MAX [Nm]	PT [kW]
SL25001											
4.18							120	142542	1786	570000	
4.89				*			102	146649	1570	487000	
6.00							83	147340	1286	386000	
SL25002											
17.47							28.6	179560	538	570000	
20.44							24.5	203328	521	487000	
23.91				*			20.9	205295	450	487000	100
29.34							17.0	207887	371	487000	
36.00							13.9	164459	239	386000	
SL25003											
70.59				14.2	221727	329	7.1	259215	192	570000	
82.58				12.1	212290	269	6.1	221512	140	487000	
89.46				11.2	238059	279	5.6	266789	156	570000	
104.8				9.5	249660	249	4.8	273266	136	570000	
112.9		*		8.9	221446	205	4.4	231065	107	570000	70
128.6				7.8	239305	195	3.9	249701	102	570000	
143.5				7.0	219608	160	3.5	238191	87	487000	
162.0				6.2	172847	112	3.1	185302	60	386000	
184.6				5.4	228231	129	2.7	238146	68	570000	
215.9				4.6	228166	111	2.3	253386	61	487000	
SL25004											
278.8	5.4	268334	151	3.6	285306	107	1.8	316843	59	570000	
326.2	4.6	274777	132	3.1	292157	94	1.5	314783	51	570000	
365.0	4.1	279490	120	2.7	297168	85	1.4	316961	45.5	570000	
417.8	3.6	285266	107	2.4	303309	76	1.2	321595	40.3	570000	
471.8	3.2	290550	97	2.1	308927	69	1.1	343075	38.1	570000	
495.5	3.0	292713	93	2.0	309515	65	1.0	329991	34.9	570000	
551.9	2.7	297527	85	1.8	311569	59	0.91	335417	31.8	570000	
629.0	2.4	303472	76	1.6	322666	54	0.79	358333	29.8	570000	
735.8	2.0	309326	66	1.4	317117	45.1	0.68	350335	24.9	570000	50
786.3	1.9	313890	63	1.3	333744	44.5	0.64	370634	24.7	570000	
919.8	1.6	313589	54	1.1	326294	37.1	0.54	362362	20.6	570000	
990.2	1.5	270183	42.9	1.0	287271	30.4	0.50	319025	16.9	487000	
1128	1.3	309005	43.0	0.89	316787	29.4	0.44	330548	15.3	570000	
1296	1.2	281396	34.1	0.77	299193	24.2	0.39	332265	13.4	487000	
1384	1.1	251916	28.6	0.72	265868	20.1	0.36	295256	11.2	570000	
1620	0.93	291055	28.2	0.62	309465	20.0	0.31	343672	11.1	487000	
1987	0.75	229293	18.1	0.50	243795	12.8	0.25	270744	7.1	386000	

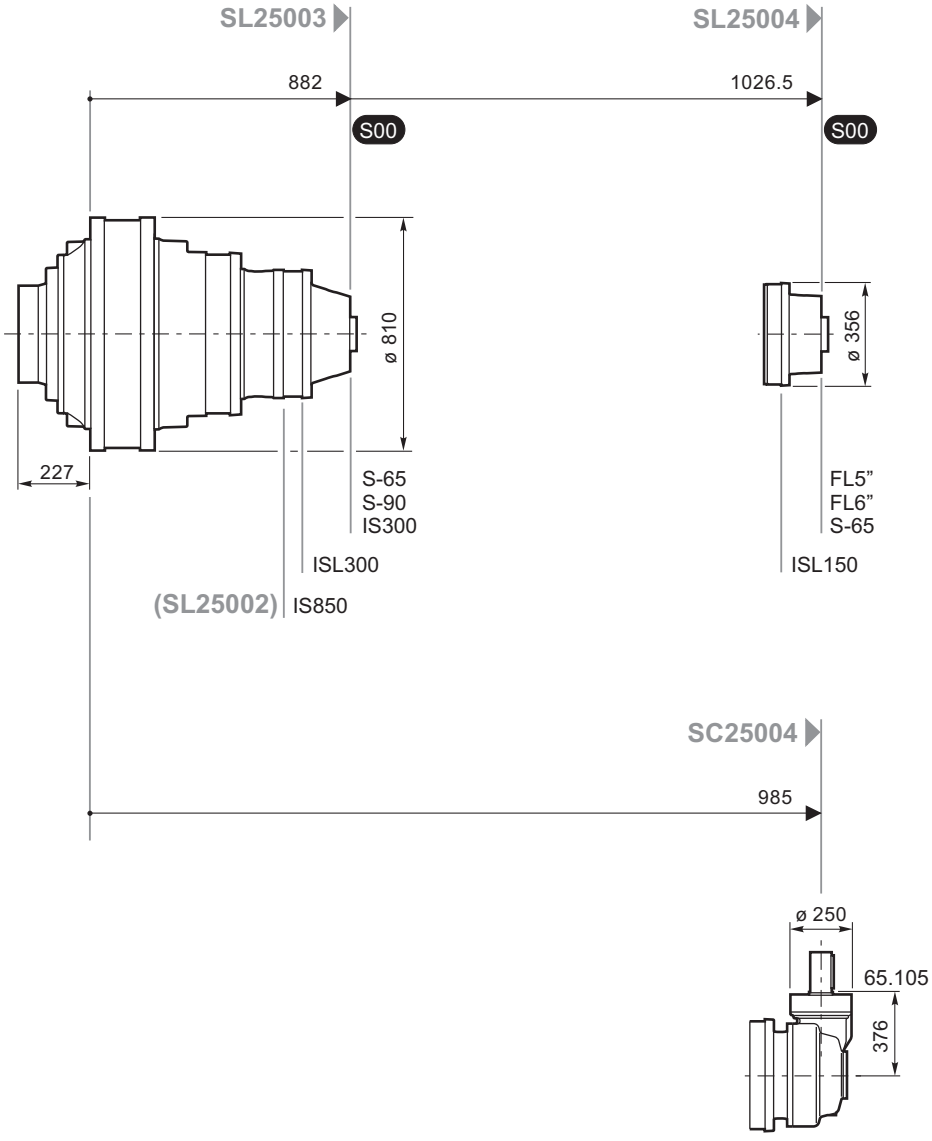
(*)Please consult YIY

请咨询 YIY 公司



ieff	n1 [rpm] 1500 n2 [rpm]	1500 T2 [Nm]	1500 P2 [kW]	1000 n2 [rpm]	1000 T2 [Nm]	1000 P2 [kW]	500 n2 [rpm]	500 T2 [Nm]	500 P2 [kW]	T2MAX [Nm]	PT [kW]
SC25004											
179.3	8.4	146232	128	5.6	165147	96	2.8	203320	59	570000	
206.1	7.3	180129	137	4.9	203428	103	2.4	250449	64	570000	
229.6	6.5	200639	137	4.4	226590	103	2.2	278966	64	570000	
261.2	5.7	228282	137	3.8	257810	103	1.9	313733	63	570000	
268.6	5.6	234718	137	3.7	265079	103	1.9	311053	61	570000	
306.1	4.9	267518	137	3.3	289365	99	1.6	321350	55	570000	
358.1	4.2	278687	122	2.8	296313	87	1.4	316591	46.3	570000	
382.1	3.9	281434	116	2.6	296429	81	1.3	309306	42.4	570000	40
439.3	3.4	287433	103	2.3	298975	71	1.1	311962	37.2	570000	
478.0	3.1	278687	92	2.1	309546	68	1.0	343763	37.7	570000	
559.2	2.7	298124	84	1.8	311822	58	0.89	336090	31.5	570000	
654.2	2.3	253764	61	1.5	269815	43.2	0.76	299639	24.0	487000	
686.0	2.2	299715	69	1.5	307263	46.9	0.73	320611	24.5	570000	
802.7	1.9	261739	51	1.2	278294	36.3	0.62	309056	20.2	487000	
984.7	1.5	269954	43.1	1.0	287028	30.5	0.51	318755	16.9	487000	
1208	1.2	212669	27.6	0.83	226120	19.6	0.41	251114	10.9	386000	



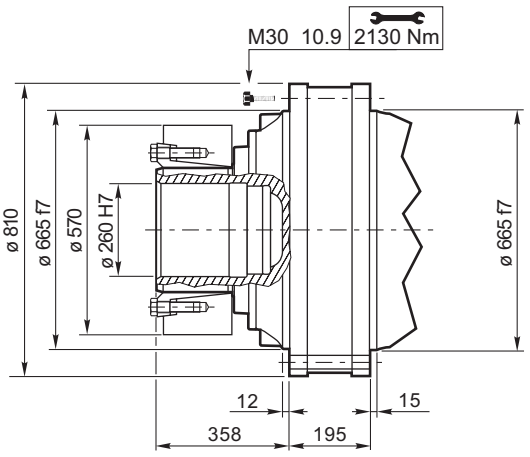


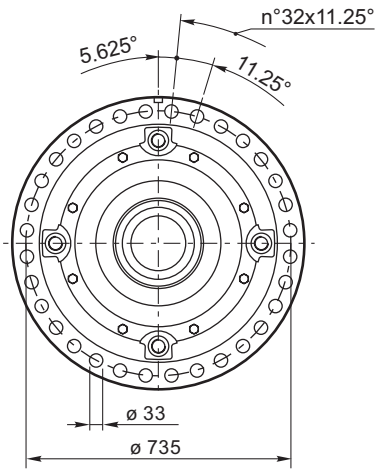
S00 91

FL5” ISL150
FL6” ISL300
S-65 IS300
S-90 IS850
74

65.105 74

IEC motor 75





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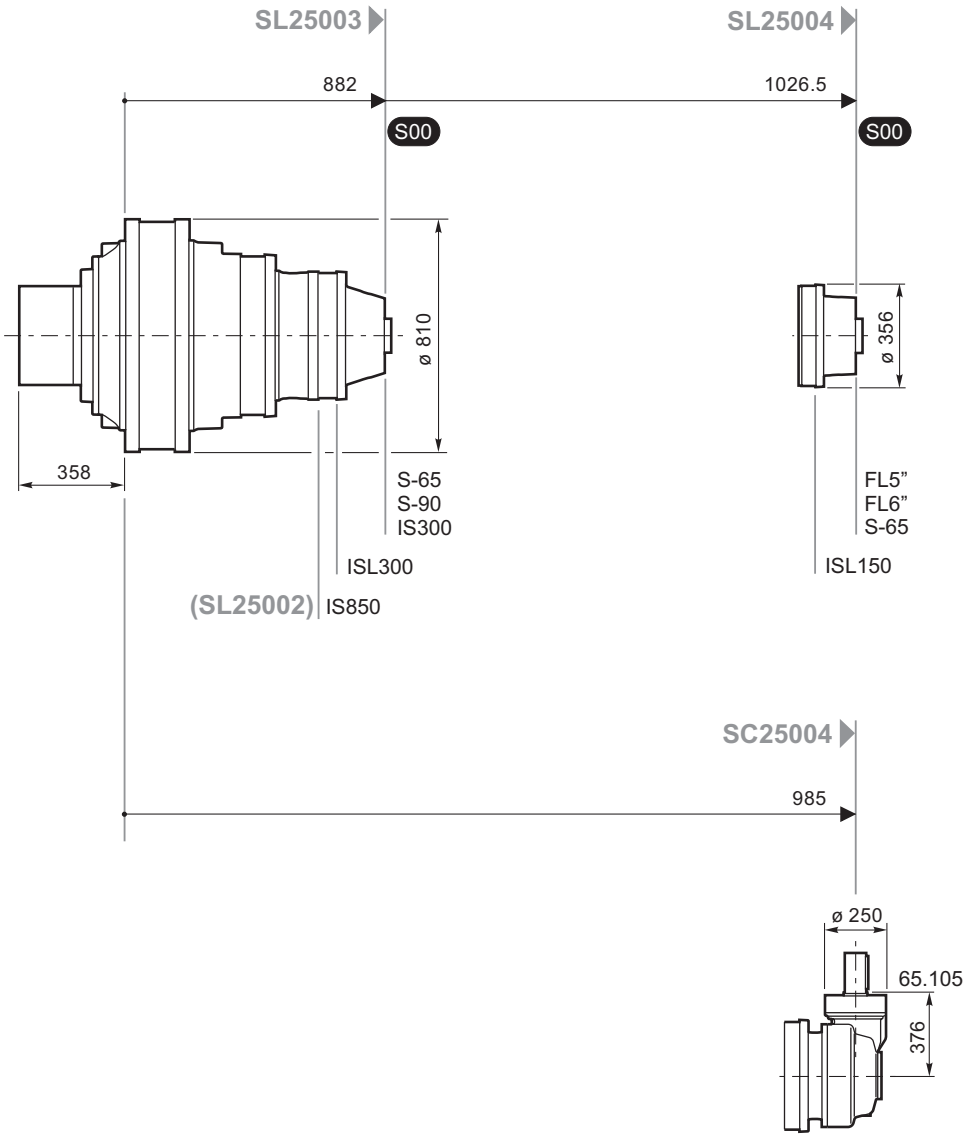
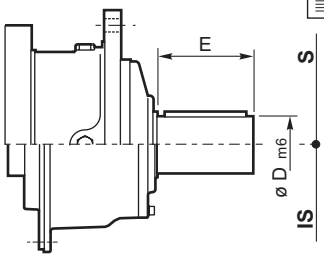


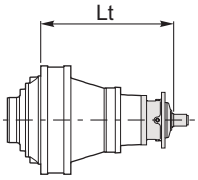
S00 91 FL5" ISL150 FL6" ISL300 S-65 IS300 S-90 IS850 74 65.105 74 IEC motor 75

S-65, S-90, ISL150, ISL300, IS300, IS850

86

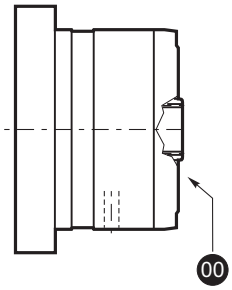


	S-65CR1	S-90CR1	ISL150	ISL300	IS300	IS850
D m6	80	90	90	90	100	110
E	130	170	130	130	210	210
	Lt					
SL25002						919
SL25003	1074.5	1080.5		952	1060	
SL25004	1218.5		1096.5			

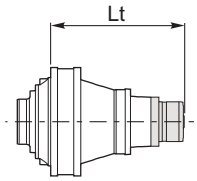


FL5", FL6"

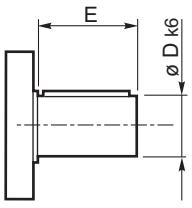
89

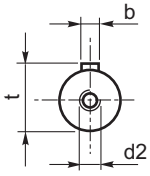


	FL250.4C FL250.6C	FL350.6C FL350.8C	FL450.6C FL450.8C	FL650.10C FL650.12C FL650.14C	FL750.10C FL750.12C FL750.14C	FL960.12C FL960.14C FL960.16C FL960.18C
	Lt					
SL25004	1105.5	1105.5	1105.5	1119	1119	1133

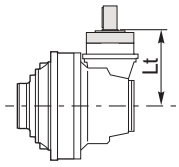


65.105

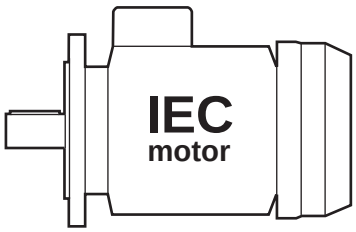




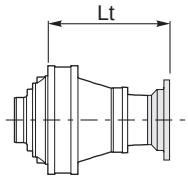
	65.105
D k6	65 m6
E	105
b	18
t	69
d2	M20x42
	Lt
SC25004	376



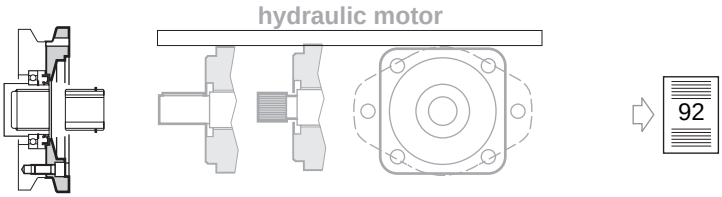
PAM IEC



	IEC80-90	IEC100-112	IEC132	IEC160	IEC180	IEC200	IEC225
	Lt						
SL25004				1101.5	1101.5	1101.5	1131.5

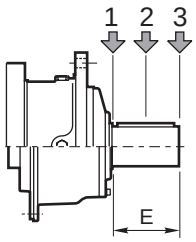


SAE J 744C, NEMA Adaptors



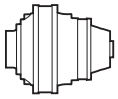
Radial loads on input shafts

输入轴径向载荷



Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
S-65CR1	130	23800	15500	9600	11900	7800	4800
S-90CR1	170	29700	17000	10000	14800	8500	5000
ISL150	130	7631	4302	2995	3824	2156	1501
ISL300	130	7631	4302	2995	3824	2156	1501
IS300	210	48814	33068	22914	24465	16573	11484
IS850	210	56261	39088	29352	28197	19590	14711

S3500

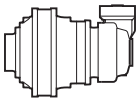


10000 HOURS LIFE

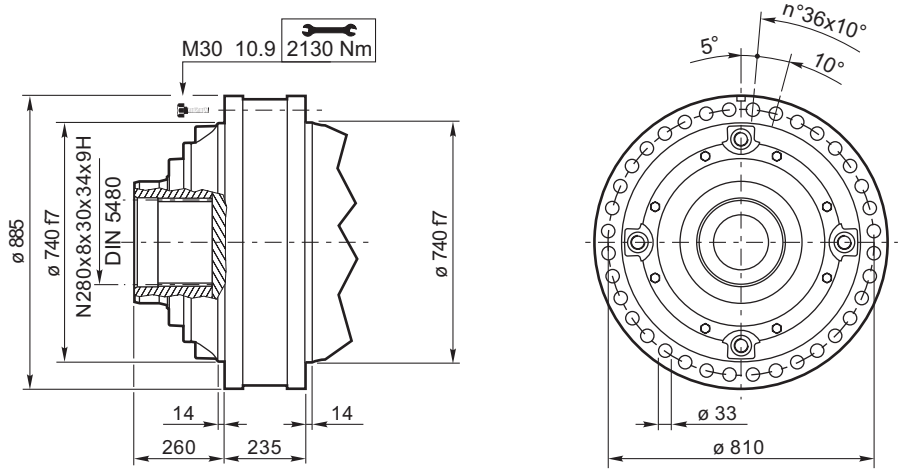
i_{eff}	n_1 [rpm] 1500			1000			500			T_{2MAX} [Nm]	P_T [kW]
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SL35001											
4.18							120	186583	2337	810000	
4.89				*			102	191960	2055	694000	
6.00							83	199552	1741	551000	
SL35002											
17.47							28.6	286564	859	810000	
20.44							24.5	297161	761	810000	
23.91				*			20.9	292706	641	694000	115
29.34							17.0	296403	529	694000	
36.00							13.9	234491	341	551000	
SL35003											
73.04				13.7	354321	508	6.8	369712	265	810000	
104.8				9.5	362265	362	4.8	388938	194	810000	
116.9				8.6	309209	277	4.3	329262	147	694000	
122.6		*		8.2	365768	312	4.1	398278	170	810000	82
143.5				7.0	313114	229	3.5	339610	124	694000	
176.0				5.7	317068	189	2.8	350282	104	694000	
216.0				4.6	250840	122	2.3	275961	67	551000	
SL35004											
288.5	5.2	383892	209	3.5	408173	148	1.7	453292	82	810000	
322.8	4.6	390476	190	3.1	415173	135	1.5	461065	75	810000	
369.6	4.1	398545	169	2.7	423753	120	1.4	470593	67	810000	
414.1	3.6	405464	154	2.4	431110	109	1.2	478764	61	810000	
463.4	3.2	412418	140	2.2	438503	99	1.1	486975	55	810000	
512.6	2.9	418771	128	2.0	445257	91	0.98	494475	51	810000	
542.1	2.8	422322	122	1.8	449033	87	0.92	498667	48.2	810000	
640.8	2.3	433146	106	1.6	460542	75	0.78	511449	41.8	810000	60
735.8	2.0	442303	94	1.4	470278	67	0.68	522262	37.2	810000	
786.3	1.9	446758	89	1.3	475015	63	0.64	527522	35.1	810000	
919.8	1.6	457486	78	1.1	486422	55	0.54	540190	30.8	810000	
954.7	1.6	292619	48.1	1.0	311127	34.1	0.52	345519	18.9	551000	
1076	1.4	390096	57	0.93	414770	40.4	0.46	460616	22.4	694000	
1296	1.2	306464	37.1	0.77	325848	26.3	0.39	361866	14.6	551000	
1620	0.93	316984	30.7	0.62	337033	21.8	0.31	374289	12.1	551000	

(*)Please consult YIY

请咨询 YIY 公司



i_{eff}	n_1 [rpm]									T_{2MAX} [Nm]	P_T [kW]
	1500			1000			500				
	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]	n_2 [rpm]	T_2 [Nm]	P_2 [kW]		
SC35004											
185.5	8.1	151300	128	5.4	170869	96	2.7	210366	59	810000	
213.3	7.0	186370	137	4.7	210478	103	2.3	259129	64	810000	
249.5	6.0	218027	137	4.0	246228	103	2.0	303143	64	810000	
291.9	5.1	255062	137	3.4	288052	103	1.7	354634	64	810000	
306.1	4.9	267519	137	3.3	302121	103	1.6	367806	63	810000	
358.1	4.2	312959	137	2.8	351183	103	1.4	390002	57	694000	
418.9	3.6	338224	127	2.4	359616	90	1.2	399367	49.9	694000	45
439.4	3.4	351543	126	2.3	360397	86	1.1	376053	44.8	810000	
514.0	2.9	348853	107	1.9	370918	76	0.97	411918	42.0	694000	
559.2	2.7	326025	92	1.8	368193	69	0.89	417204	39.1	694000	
654.2	2.3	361814	87	1.5	384698	62	0.76	427221	34.2	694000	
686.2	2.2	361289	83	1.5	370388	57	0.73	397550	30.3	810000	
802.7	1.9	373185	73	1.2	396788	52	0.62	440647	28.7	694000	
985.0	1.5	294003	46.9	1.0	312598	33.2	0.51	347152	18.5	551000	



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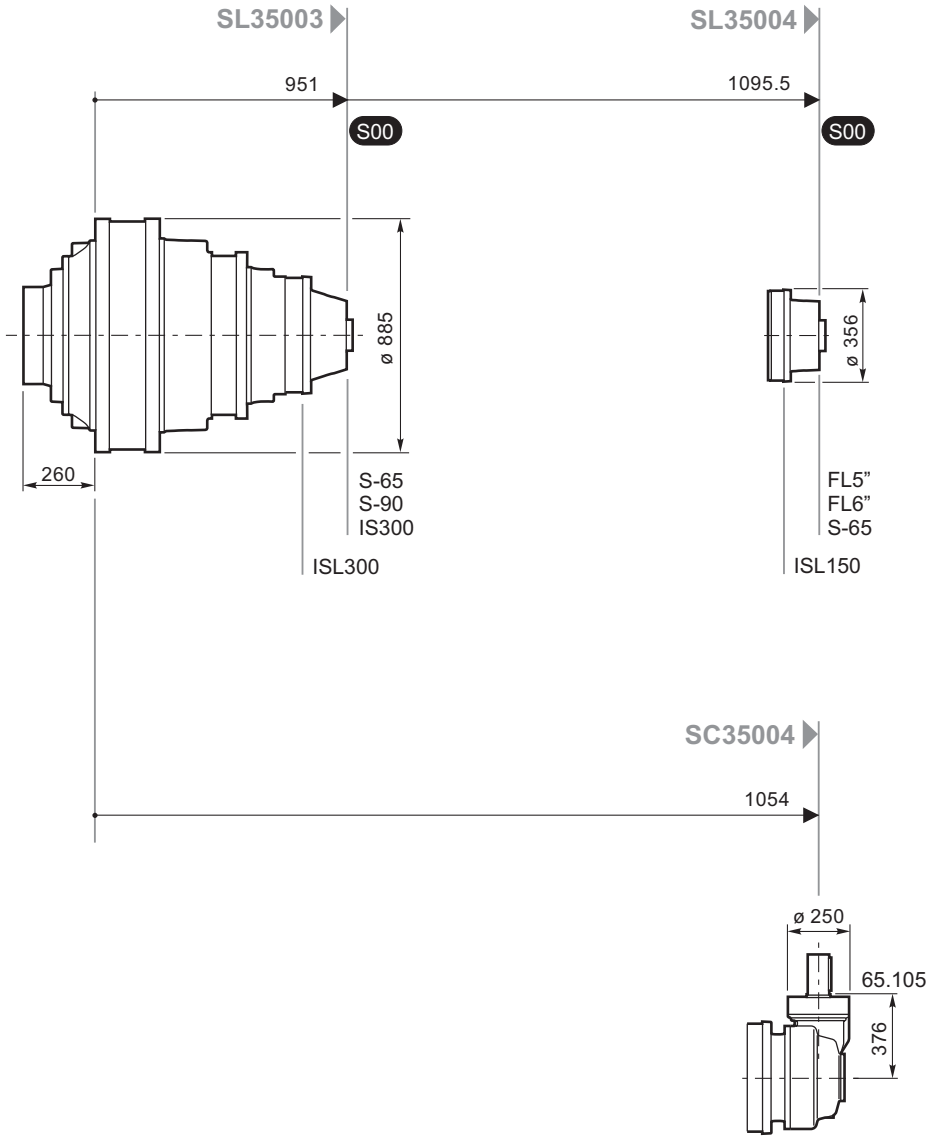
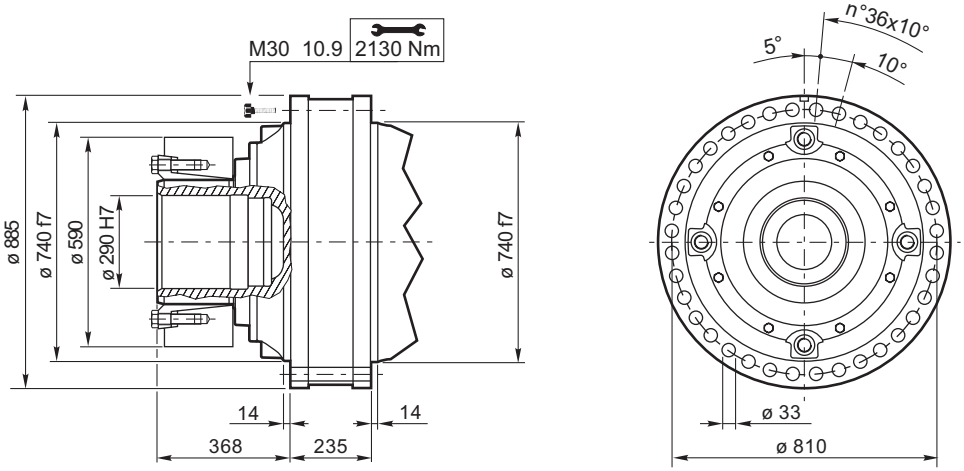
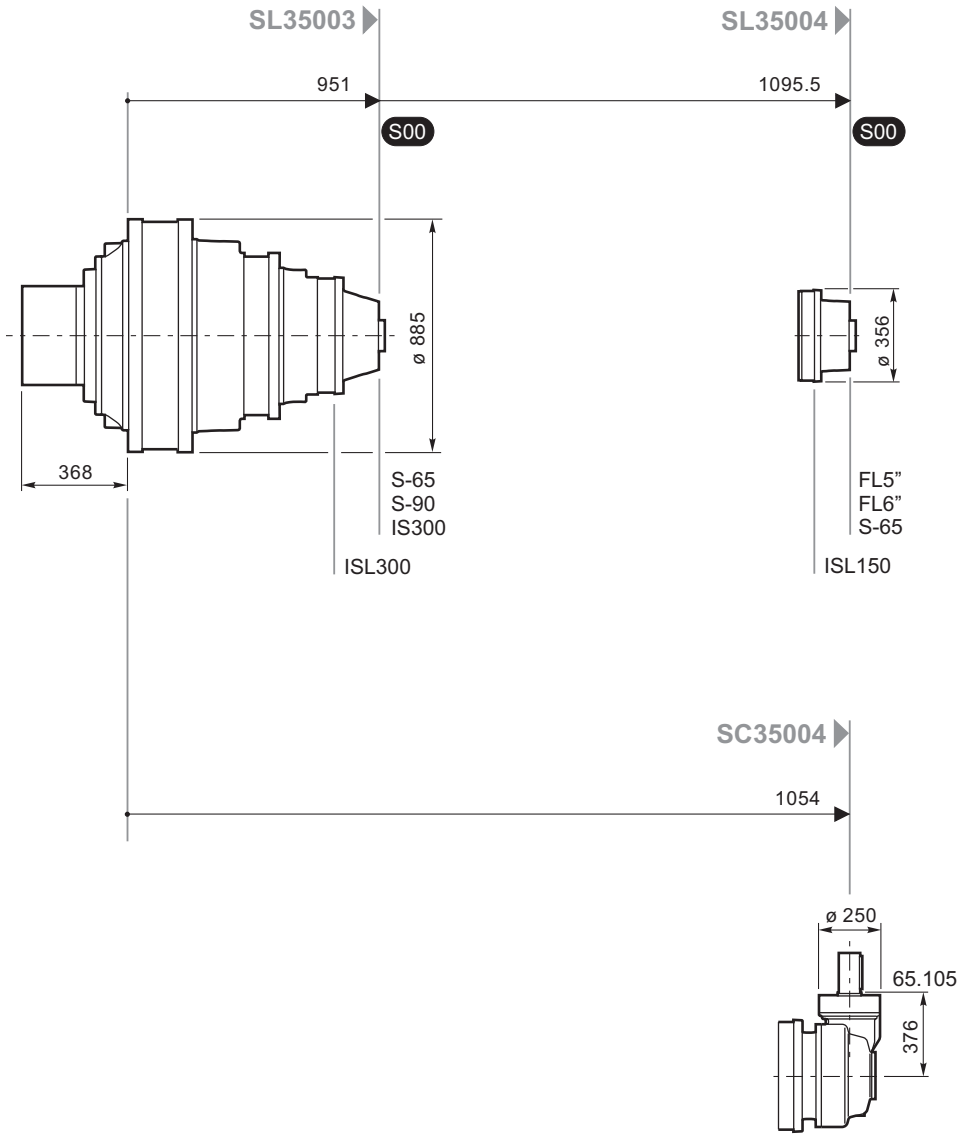


S00 91
FL5” ISL150
FL6” ISL300
S-65 IS300
S-90
80
65.105
80
IEC motor
81

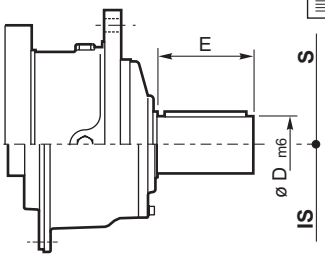




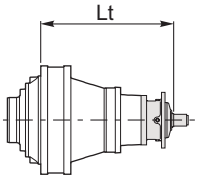
S00 91 FL5" ISL150 FL6" ISL300 S-65 IS300 S-90 80 65.105 80 IEC motor 81

S-65, S-90, ISL150, ISL300, IS300

86

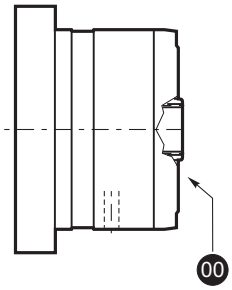


	S-65CR1	S-90CR1	ISL150	ISL300	IS300
D m6	80	90	90	90	100
E	130	170	130	130	210
	Lt				
SL35003	1143.5	1149.5		1021	1129
SL35004	1287.5		1165.5		

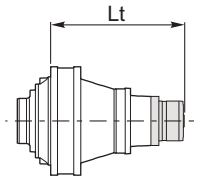


FL5", FL6"

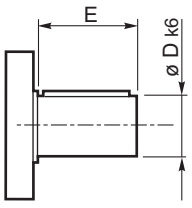
89

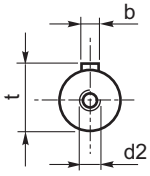


	FL250.4C FL250.6C	FL350.6C FL350.8C	FL450.6C FL450.8C	FL650.10C FL650.12C FL650.14C	FL750.10C FL750.12C FL750.14C	FL960.12C FL960.14C FL960.16C FL960.18C
	Lt					
SL35004	1174.5	1174.5	1174.5	1188	1188	1202

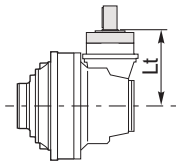


65.105

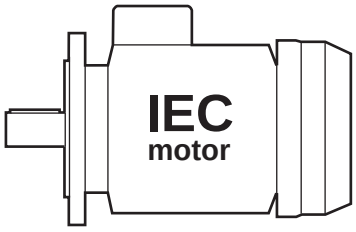




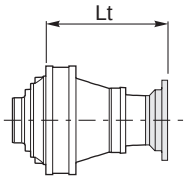
	65.105
D k6	65 m6
E	105
b	18
t	69
d2	M20x42
	Lt
SC35004	376



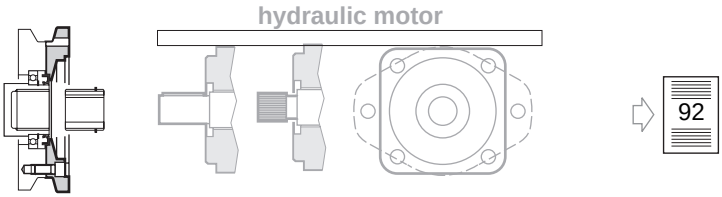
PAM IEC



	IEC80-90	IEC100-112	IEC132	IEC160	IEC180	IEC200	IEC225
	Lt						
SL35004					1170.5	1170.5	1200.5

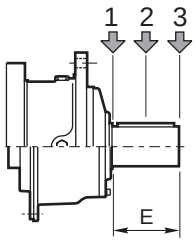


SAE J 744C, NEMA Adaptors



Radial loads on input shafts

输入轴径向载荷



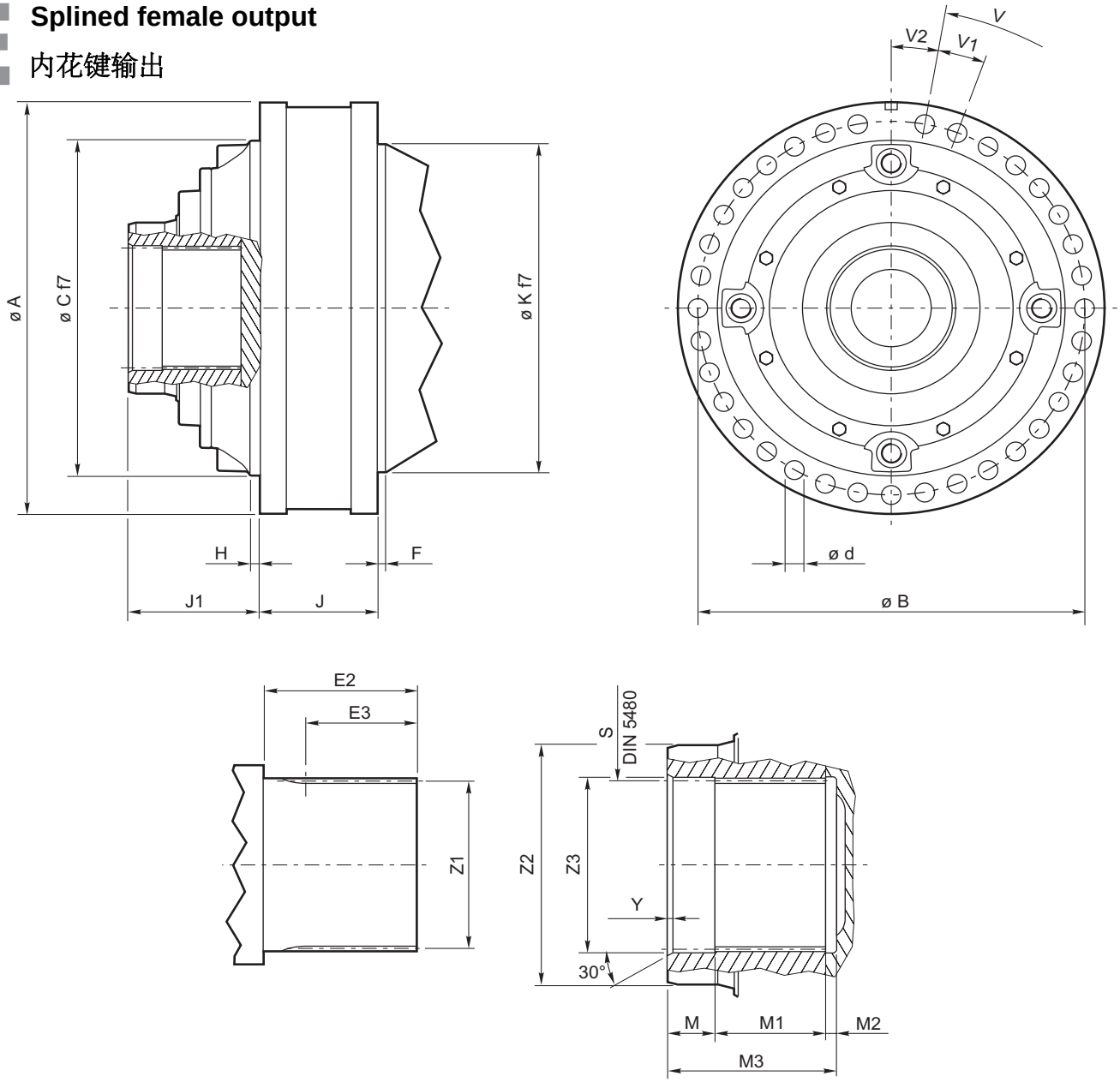
Type	E	Fr [N]					
		$n_1 \cdot h = 10^7$			$n_1 \cdot h = 10^8$		
		1	2	3	1	2	3
S-65CR1	130	23800	15500	9600	11900	7800	4800
S-90CR1	170	29700	17000	10000	14800	8500	5000
ISL150	130	7631	4302	2995	3824	2156	1501
ISL300	130	7631	4302	2995	3824	2156	1501
IS300	210	48814	33068	22914	24465	16573	11484

5. OUTPUT-INPUT

5. 输出 - 输入

FE Splined female output

内花键输出

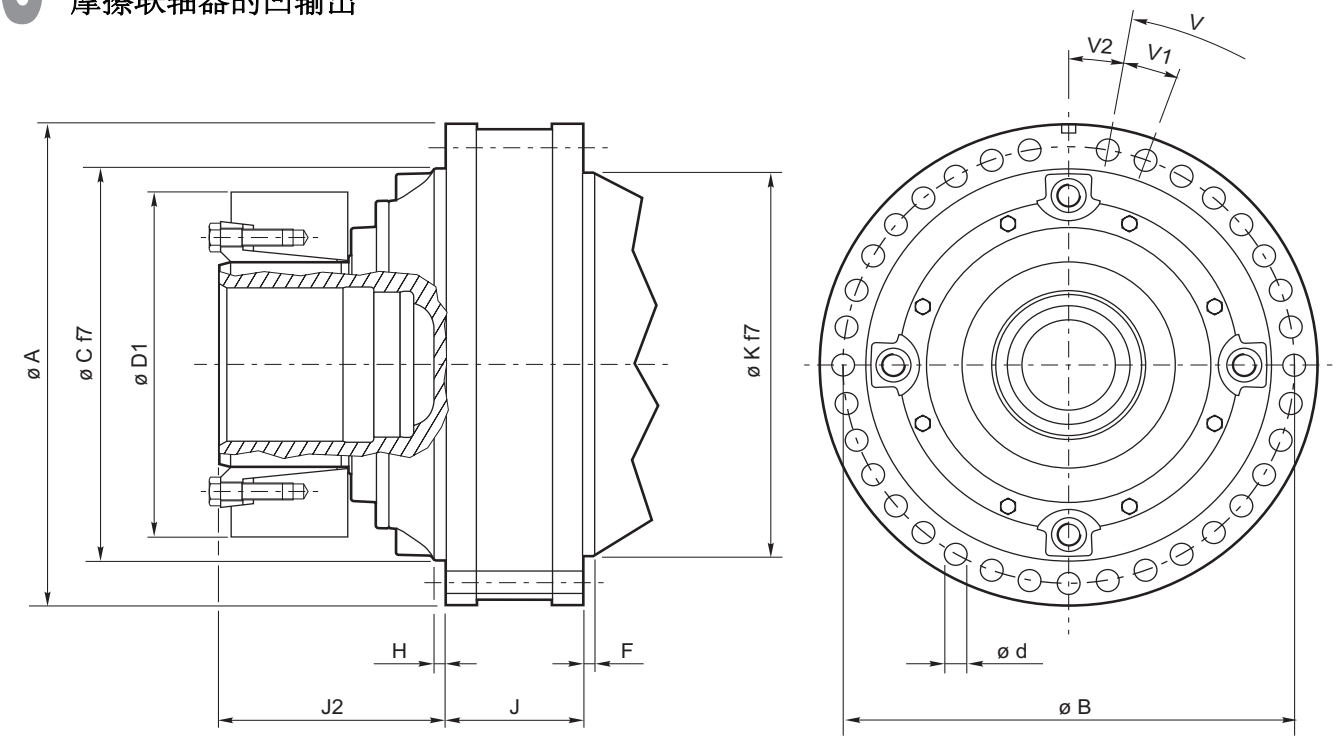


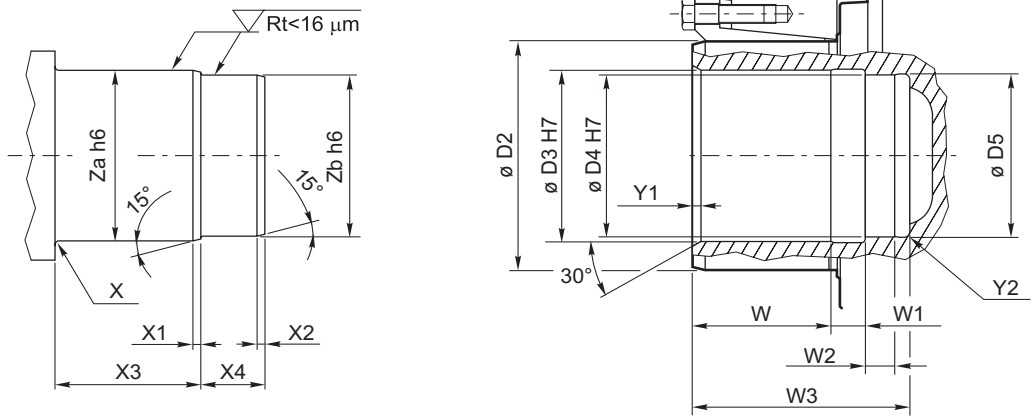
	A	B	C	d	E2	E3	F	H	J	J1	K	M	M1	M2	M3
S300	445	400	370	15.5	103	88	12	10	124	117	365	15	90	—	105
S400	445	400	370	15.5	105	90	12	10	124	140	365	15	90	10	115
S600	510	460	410	22	130	85	12	12	142	160	415	45	85	10	140
S850	565	510	460	26	150	105	10	11	156	174	450	45	105	10	160
S1200	635	575	520	26	165	120	15	12	175	205	520	45	120	15	180
S1800	710	650	595	26	175	130	16	14	185	213	595	45	130	15	190
S2500	810	735	665	33	190	140	15	12	195	227	665	50	140	15	205
S3500	885	810	740	33	220	170	14	14	235	260	740	50	170	17	237

	S	V	V1	V2	Y	Z1	Z2	Z3
S300	N120x5x30x22x9H	n°35x10°	10°	10°	1x45°	W120x5x30x22x8g	165	122
S400	N140x5x30x26x9H	n°35x10°	10°	10°	3x30°	W140x5x30x26x8g	185	142
S600	N150x5x30x28x9H	n°28x12.857°	12.857°	6.428°	5x30°	W150x5x30x28x8g	218	152
S850	N170x5x30x32x9H	n°28x12.857°	12.857°	6.428°	5x30°	W170x5x30x32x8g	235	172
S1200	N200x5x30x38x9H	n°32x11.25	11.25°	5.625°	5x30°	W200x5x30x38x8g	275	202
S1800	N210x5x30x40x9H	n°32x11.25	11.25°	5.625°	5x30°	W210x5x30x40x8g	297	212
S2500	N240x5x30x46x9H	n°32x11.25	11.25°	5.625°	5x30°	W240x5x30x46x8g	338	242
S3500	N280x8x30x34x9H	n°36x10°	10°	5°	5x30°	W280x8x30x34x8g	358	282

FS Female output for friction couplings

摩擦联轴器的凹输出



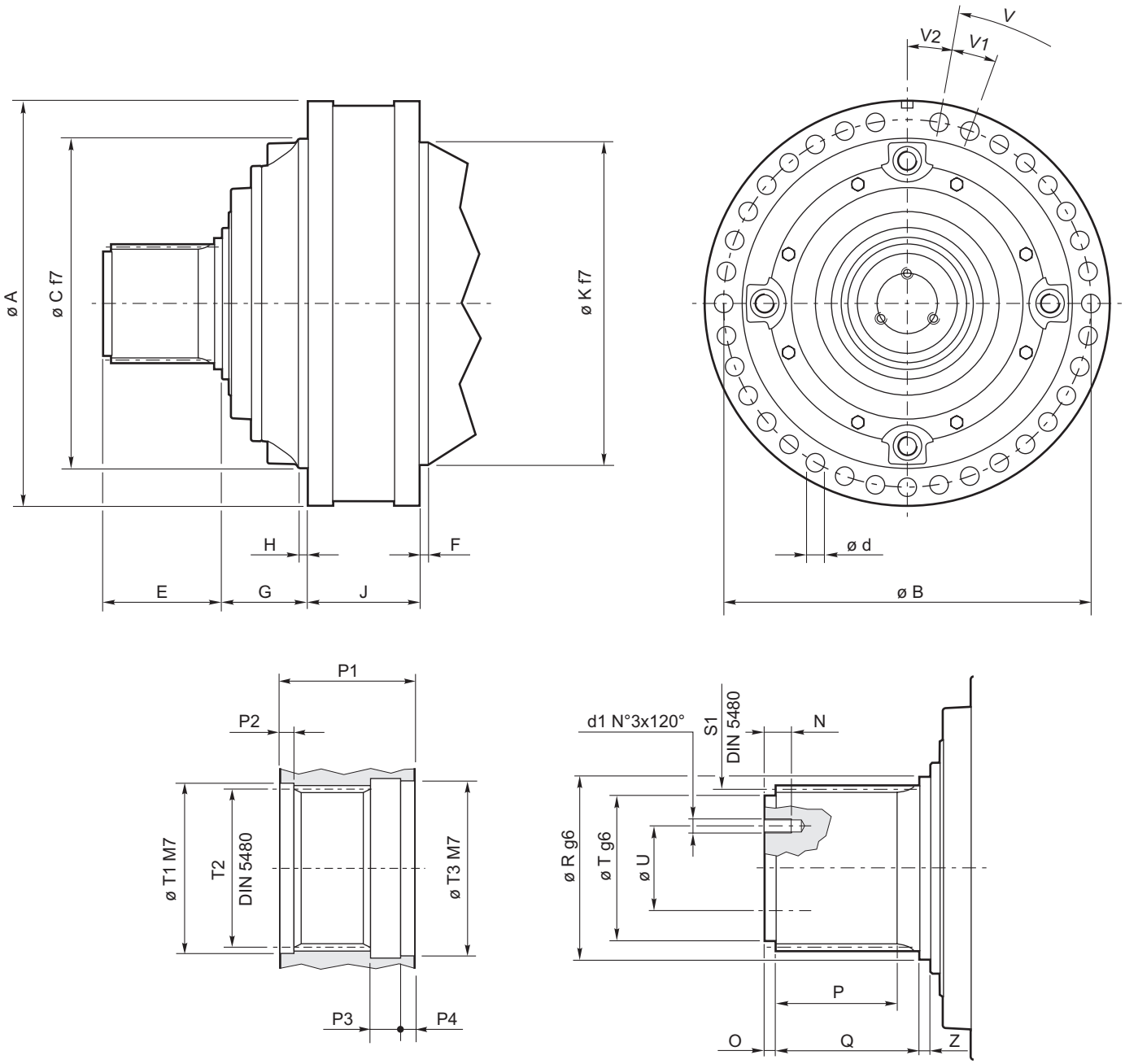


	A	B	C	d	D1	D2	D3	D4	D5	F	H	J	J2	K
S300	445	400	370	15.5	320	185	140	130	132	12	10	124	178	365
S400	445	400	370	15.5	320	185	140	130	132	12	10	124	208	365
S600	510	460	410	22	370	220	165	155	157	12	12	142	235	415
S850	565	510	460	26	405	240	180	170	172	10	11	156	257	450
S1200	635	575	520	26	460	280	220	210	212	15	12	175	315	520
S1800	710	650	595	26	485	300	240	230	232	16	14	185	322	595
S2500	810	735	665	33	570	340	260	250	252	15	12	195	358	665
S3500	885	810	740	33	590	360	290	280	282	14	14	235	368	740

	V	V1	V2	W	W1	W2	W3	X	X1	X2	X3	X4	Y1	Y2	Za	Zb
S300	n°35x10°	10°	10°	83	27	30	150	R 2 max	4	4	87	57	4	R 3.5	140	130
S400	n°35x10°	10°	10°	110	25	22	167	R 2.5 max	4	4	114	47	5	R 3.5	140	130
S600	n°28x12.857°	12.857°	6.428°	132	28	25	200	R 4 max	5	5	137	53	6	R 5	165	155
S850	n°28x12.857°	12.857°	6.428°	140	35	30	220	R 4 max	5	5	145	65	5	R 6	180	170
S1200	n°32x11.25	11.25°	5.625°	179	40	32	269	R 4 max	5	5	184	72	8	R 10	220	210
S1800	n°32x11.25	11.25°	5.625°	176	40	315	303.5	R 4 max	5	5	181	72	8	R 10	240	230
S2500	n°32x11.25	11.25°	5.625°	211	45	37	311	R 4 max	5	5	216	82	8	R 10	260	250
S3500	n°36x10°	10°	5°	218	45	40	323	R 4 max	5	5	223	85	8	R 12	290	280

MP Splined male output

外花键输出

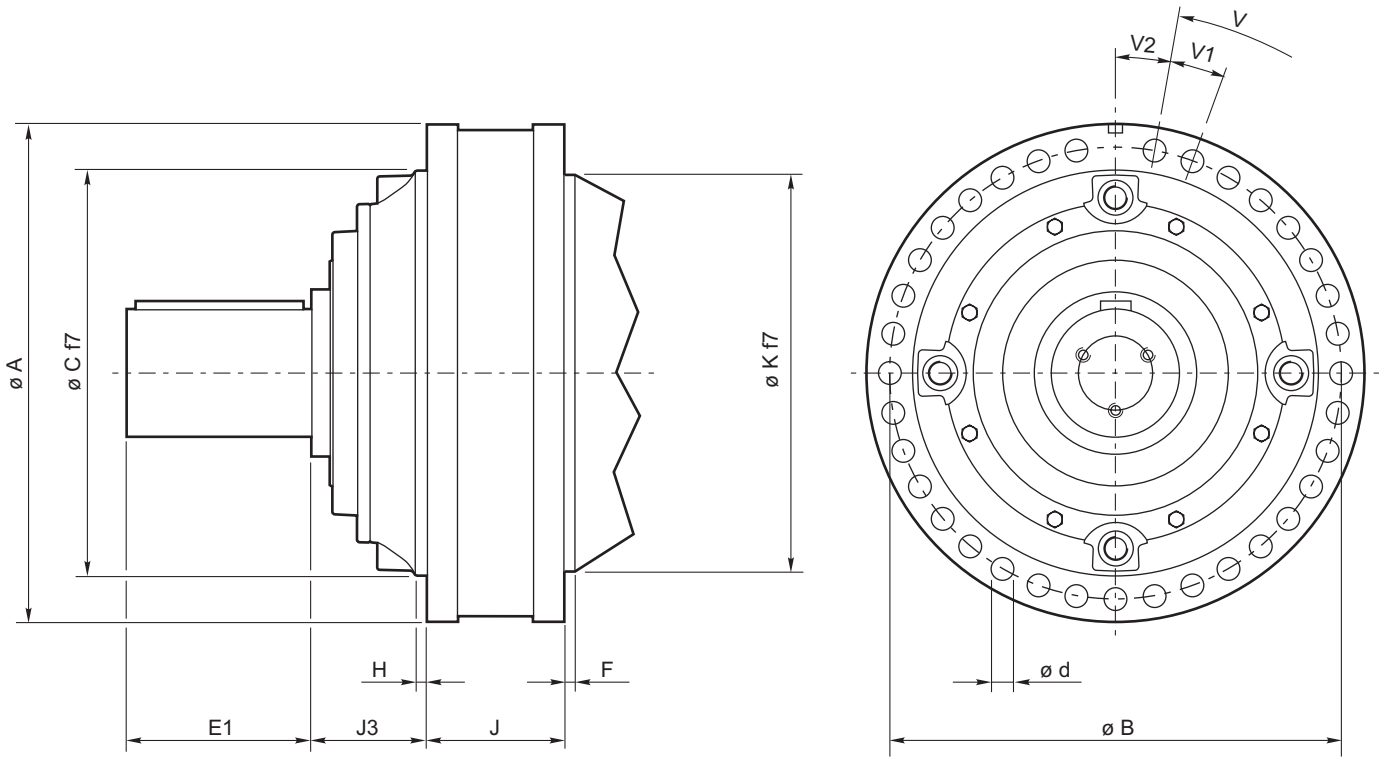


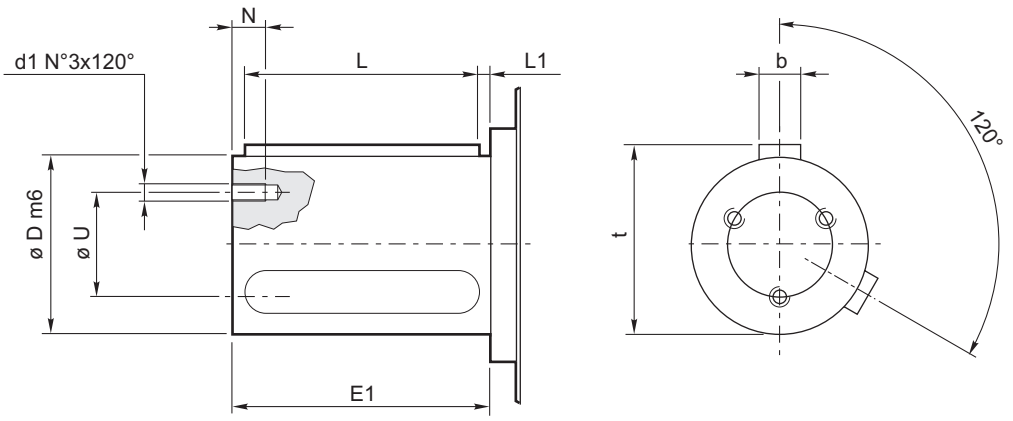
	A	B	C	d	d1	E	F	G	H	J	K	N	O	P
S300	445	400	370	15.5	M14	130	12	117	10	132	365	27	10	85
S400	445	400	370	15.5	M14	140	12	145	10	124	365	27	13	90
S600	510	460	410	22	M14	150	12	152	12	145	415	27	12	95
S850	565	510	460	26	M14	170	10	163	11	156	450	27	15	115

	P1	P2	P3	P4	Q	R	S1	T	T1	T2	T3	U	V	V1	V2	Z
S300	130	10	15	21	105	120	W120x3x30x38x8f	100	121	N120x3x9H	120	75	n°35x10°	10°	10°	15
S400	130	10	15	21	109	130	W130x3x30x42x8f	110	121	N120x3x9H	120	85	n°35x10°	10°	10°	18
S600	150	12	18	27	123	151	W150x5x30x28x8f	120	151	N150x5x9H	151	95	n°28x12.857°	12.857°	6.428°	15
S850	170	15	17	25	140	171	W170x5x30x32x8f	140	171	N170x5x9H	171	112	n°28x12.857°	12.857°	6.428°	15

MP1 Cylindrical male output

实心轴输出





	A	B	b	C	D	d	d1	E1	F	H	J	J3	K	L	L1	N	t	U	V	V1	V2
S300	445	400	32	370	120	15.5	M14	210	12	10	132	117	365	200	5	27	127	85	n°35x10°	10°	10°
S400	445	400	32	370	130	15.5	M14	220	12	10	124	145	365	200	10	27	137	95	n°35x10°	10°	10°
S600	510	460	40	410	160	22	M14	240	12	12	145	152	415	220	10	27	169	120	n°28x12.857°	12.857°	6.428°
S850	565	510	40	460	170	26	M14	240	10	11	156	163	450	220	10	27	179	125	n°28x12.857°	12.857°	6.428°

INPUT MALE SHAFTS

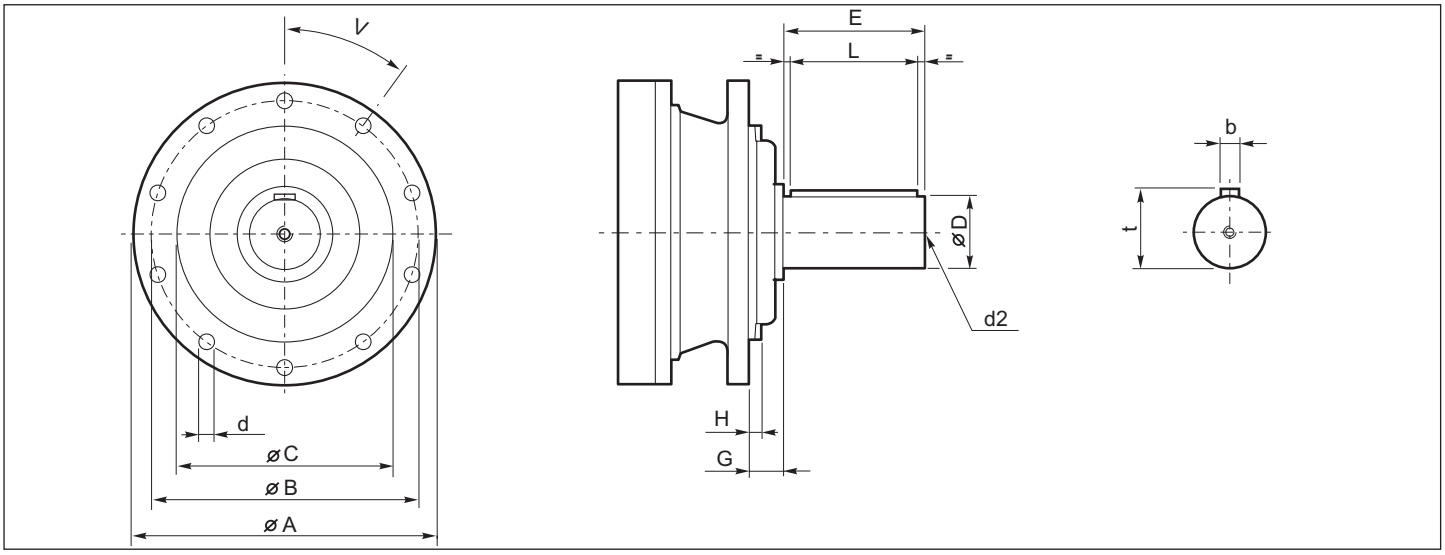
Input shafts described below are used when the driving motor, which is usually electric, is connected to the input shaft by flexible coupling or belts and pulleys.
Normal mounting position is with horizontal axis; for different positions the lubrication solution must be adjusted: please consult YIY technical staff for more details. Max working speed is generally 1800 min^{-1}.
The input shafts ISL are suitable for connection with elastic coupling.

These types are suitable for using on specific gears types, as shown in the dimensional table of each gear size.

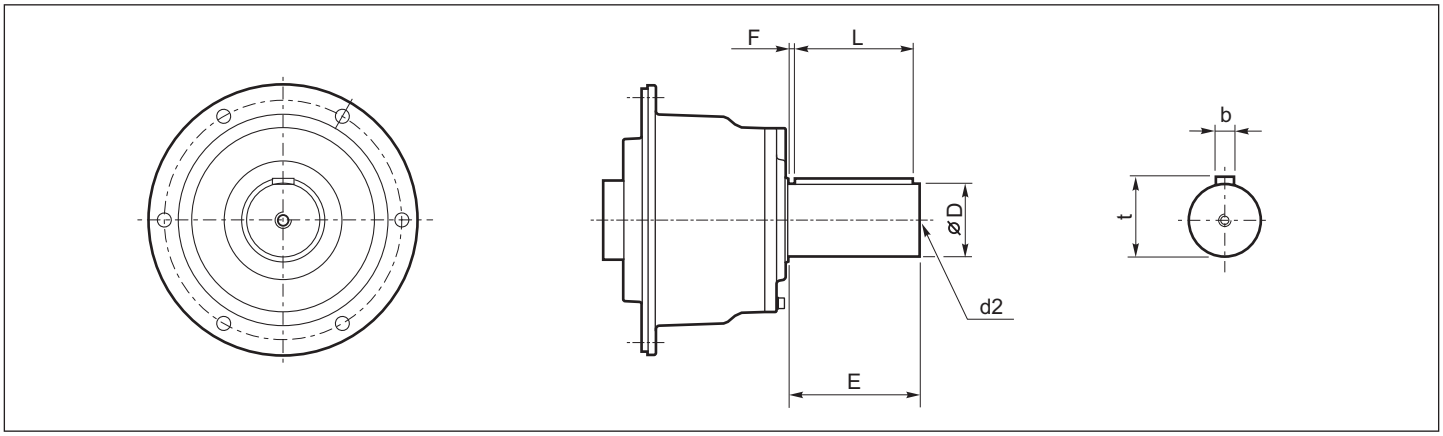
输入实心轴

当驱动马达（通常是电动机）通过弹性联轴器或传动带和皮带轮与输入轴连接起来时，要使用下面介绍的输入轴。
正常的装配位置以水平轴为依据；对于不同的位置，必须对润滑方案做相应调整：有关详情，请咨询 YIY 技术人员。最大工作速度通常为1800 min^{-1}。
输入轴 ISL 适合与弹性联轴器连接。

以下类型适合在特殊的齿轮类型上使用，如含有每个齿轮尺寸的尺寸表所示。



	A	B	C f7	D m6	E	G	H	I	L	b	d	d2 DIN 332	t
S-45CR1	220	195	150	65	105	15	5	16	90	18	14	M20x42	69
S-46C1	272	245	175	65	105	39	10	18	90	18	14	M20x42	69
S-65CR1	280	250	200	80	130	40	20	20	110	22	16	M20x42	85
S-90CR1	325	295	230	90	170	36	5	25	160	25	18	M24x50	95

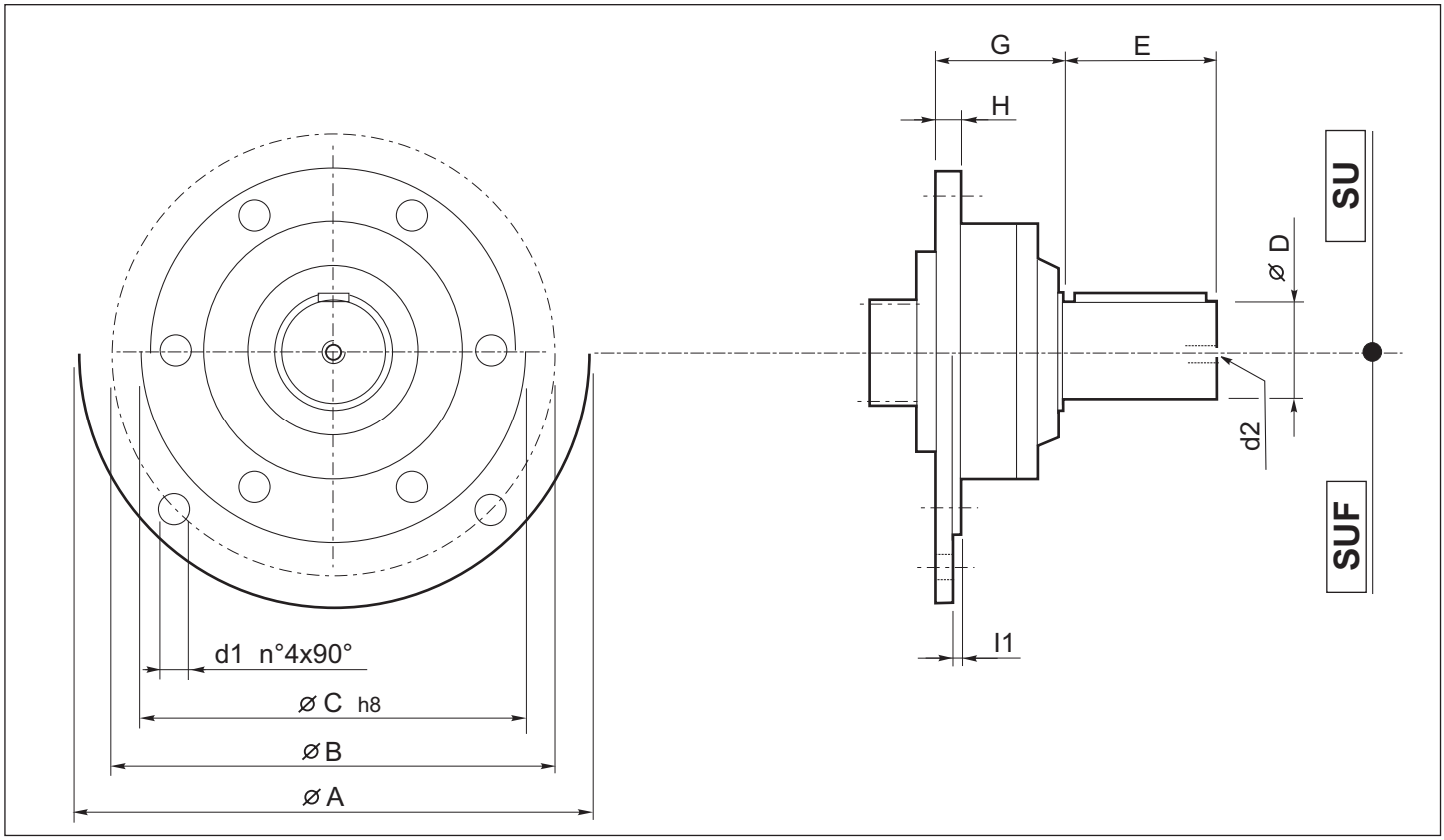


	D m6	E	t	b	F	L	d2 DIN 332
ISL150	90	150	95	25	5	110	M20x42
ISL250							
ISL300							

	D m6	E	t	b	F	L	d2 DIN 332
IS300	100	210	106	28	10	180	M24x50
IS600	110	210	116	28	10	180	M24x50
IS850	110	210	116	28	10	180	M24x50

Male shafts for universal input
These types generally used in combination with a flexible coupling. They fit directly onto any type of gear unit with universal input type 00 and can be supplied separately, See gearbox sections for dimensions and radial loads.

用于通用输入的实心轴
以下类型通常和弹性联轴器配合使用。通过通用输入类型 00，可以将它们直接安装到任何类型的传动装置上，并可以单独供应。有关尺寸和径向负载，请参阅齿轮箱的各章节。



	A	B	C	D	d1	d2	E	G	H	l1	Code / 代码
SU1	—	—	—	28	—	M10x22	50	60	12	—	C1129800420
SU2	—	—	—	40	—	M10x22	58	60	12	—	C1129800380
SU3	—	—	—	48	—	M10x25	82	60	12	—	C1129800910
SUF1	250	215	180	28	13	M10x22	50	60	12	3	C1131900420
SUF2	250	215	180	40	13	M10x22	58	60	12	3	C1131900380
SUF3	250	215	180	48	13	M10x25	82	60	12	3	C1131900910

MULTIDISC BRAKES IN OIL

The gear units in this catalogue can be supplied with multidisc brakes, in oil, hydraulically released.

Negative brakes

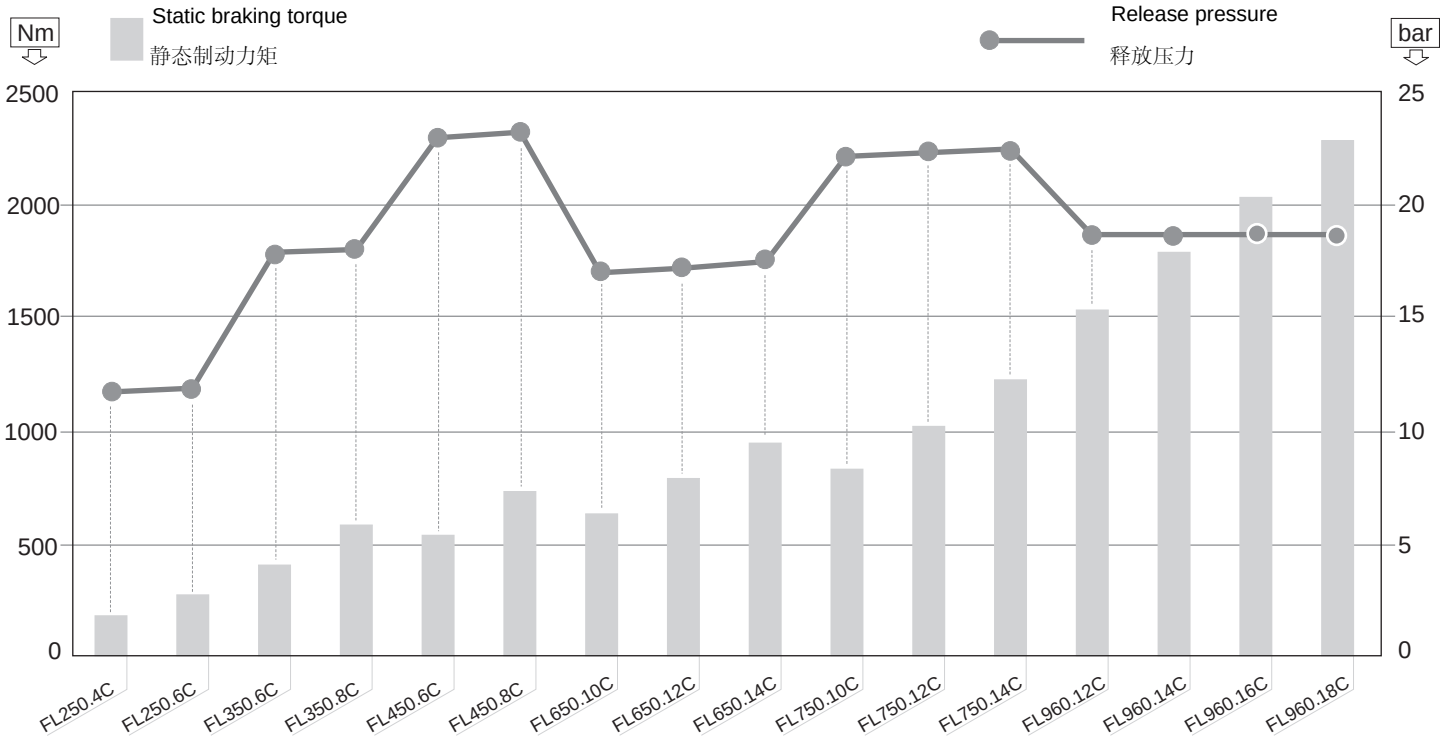
These brakes are actuated by a series of coil springs pressing together alternate fixed and rotating discs. The braking torque is released by mean of an hydraulic pressure supplied from outside. This means that they work as “negative” brakes and are intended for safety or parking only, when the input shaft is not rotating. These performances, with +/- 10% accuracy margins, are always calculated without back pressure; otherwise the braking torque is reduced as a percentage of the ratio back pressure/minimum opening pressure.
When carrying out the selection, the following two conditions must be taken into account:
1) Braking torque x i_{eff} > required output torque;
2) Braking torque x i_{eff} < 1.1 T_{2max}.
We remind you that high rotation speed, or extended running with vertical axis, can generate considerable temperature increases; in such cases please apply to YIY technical staff for advice. For lubrication we recommend to use mineral oils heat and aging resistant, having viscosity ISO VG 32 and viscosity index at least 95; hydraulic oils are usually suitable (for recommended types see lubrication chapter).

油浴多片式制动器

本目录中的齿轮装置可以随多片式制动器供应，用油压方式释放。

减速制动器

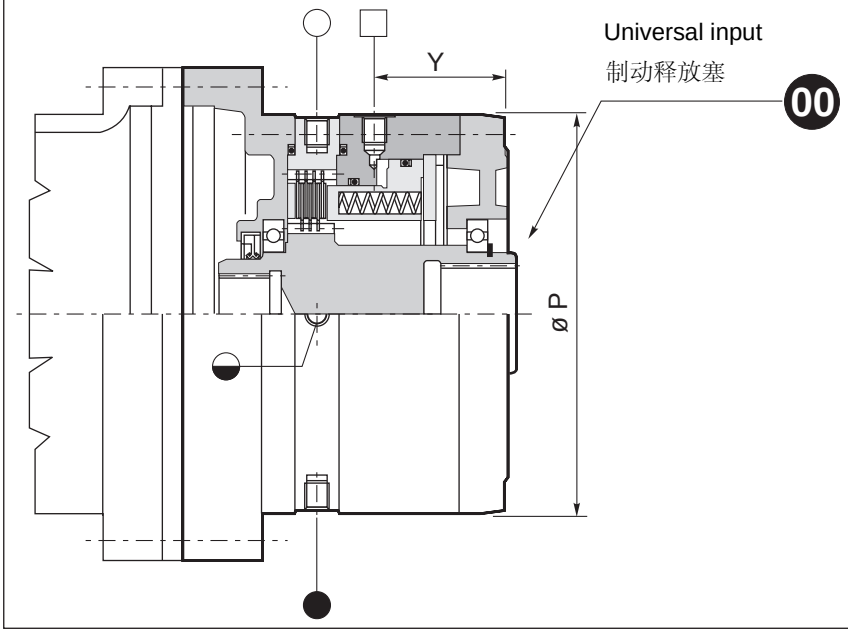
这些制动器通过一系列将备用固定和旋转盘压紧的螺旋弹簧驱动。制动力矩由外部液压释放。这表明它们将在输入轴不旋转时作为“减速”制动器工作，目的仅仅是为了安全或停车。这些性能，加上 +/- 10% 精确度容差，始终是在没有背压的情况下计算得出的；否则，制动力矩会以背压 / 最小开压比的百分比减少。
在进行选择时，必须考虑以下两个条件：
1) 制动力矩 x i_{eff} > 所需的输出力矩；
2) 制动力矩 x i_{eff} < 1.1 T_{2max}。
我们提醒您，高转速或沿纵轴扩展运行，都会使温度升高很多；在这种情况下，请向 YIY 技术人员寻求建议。至于润滑油，我们建议使用耐热老化的矿物油，粘度符合 ISO VG 32 标准，粘度指数至少 95；液压油通常也适用（关于推荐使用的类型，请参阅“润滑油”章节）。



		T [Nm]	P [bar]	Pmax [bar]	Vo [l]		Va [cm³]
					horizontal 水平	vertical 竖直	new discs 新盘
FL250	*FL 250.4C*	181	13.28	315	0.3	0.6	15
	FL 250.6C	278	13.28	315	0.3	0.6	15
FL350	*FL 350.6C*	417	19.92	315	0.3	0.6	15
	FL 350.8C	571	19.92	315	0.3	0.6	15
FL450	*FL 450.6C*	540	25.59	315	0.3	0.6	15
	FL 450.8C	737	25.59	315	0.3	0.6	15
FL650	*FL 650.10C*	642	19.92	315	0.5	1.0	15
	FL 650.12C	792	19.92	315	0.5	1.0	15
	FL 650.14C	949	19.92	315	0.5	1.0	15
FL750	*FL 750.10C*	834	25.59	315	0.5	1.0	15
	FL 750.12C	1027	25.59	315	0.5	1.0	15
	FL 750.14C	1229	25.59	315	0.5	1.0	15
FL960	*FL 960.12C*	1528	21.98	315	1.2	2.4	22
	FL 960.14C	1783	21.98	315	1.2	2.4	22
	FL 960.16C	2038	21.98	315	1.2	2.4	22
	FL 960.18C	2293	21.98	315	1.2	2.4	22

T: Medium static torque
P: Brake release pressure
Pmax: Max pressure
Vo: Oil quantity
Va: Oil quantity for brake release control

T: 中等静力矩
P: 制动器释放压力
Pmax: 最大压力
Vo: 油量
Va: 制动器释放控制所用油量



A □ BRAKE RELEASING PLUG
放油塞

B ● DRAIN PLUG
油液面塞

C ◒ OIL LEVEL PLUG
通气和注油塞

D ○ BREATHER AND FILLING PLUG
直接连接

	P	Y	PLUGS / 插头				Kg
			A	B	C	D	
FL 250	195	67	M12X1.5	R 1/4"	R 1/4"	R 1/4"	24
FL 350	195	67	M12X1.5	R 1/4"	R 1/4"	R 1/4"	24
FL 450	195	67	M12X1.5	R 1/4"	R 1/4"	R 1/4"	26
FL 650	195	67	M12X1.5	R 1/4"	R 1/4"	R 1/4"	36
FL 750	225	72.5	M12X1.5	R 1/4"	R 1/4"	R 1/4"	37
FL 960	225	72.5	M12X1.5	R 1/4"	R 1/4"	R 1/4"	42

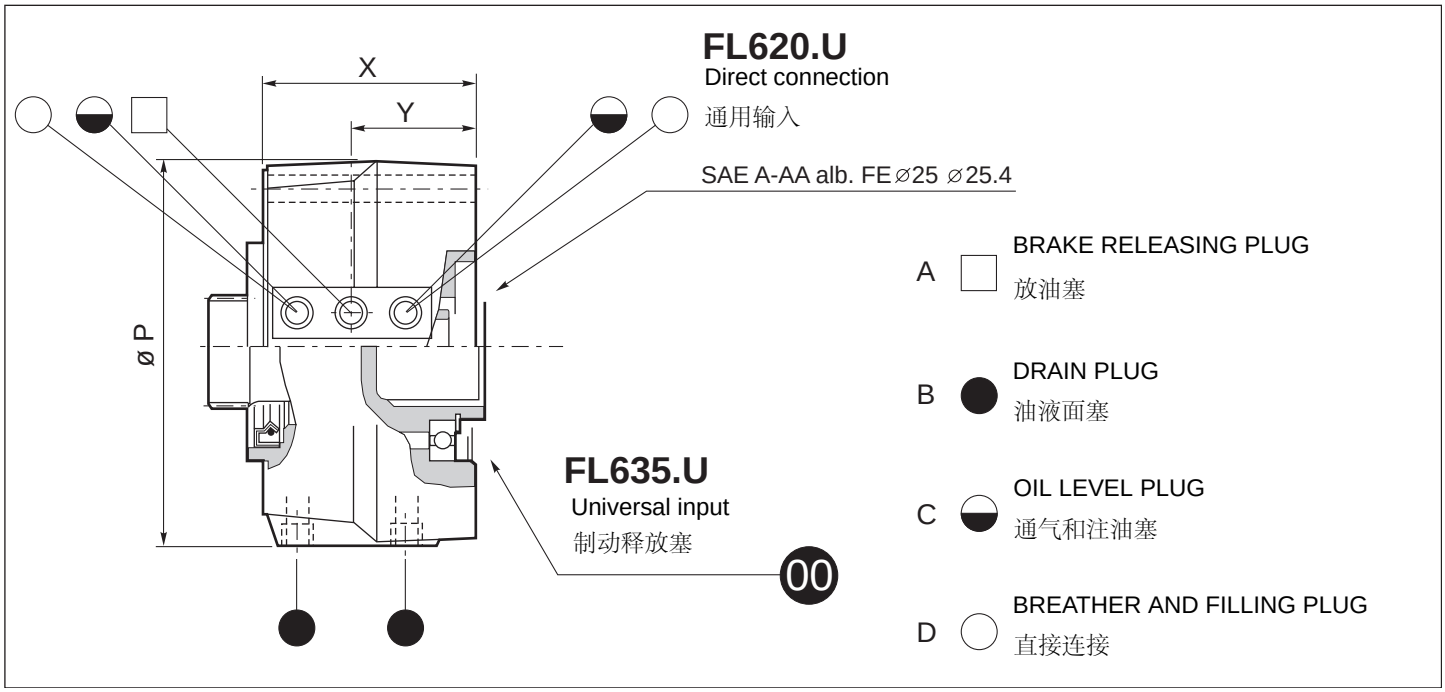
MULTIDISC BRAKES FOR UNIVERSAL INPUT

多片式制动器

	T [Nm]	P [bar]	Pmax [bar]	Vo [l]		Va [cm^3]
				horizontal 水平	vertical 竖直	new discs 新盘
FL620.U	271	24.9	210	0.1	0.2	10
FL635.U	377	13.6	315	0.1	0.2	10

T: Medium static torque
P: Brake release pressure
Pmax: Max pressure
Vo: Oil quantity
Va: Oil quantity for brake release control

T: 中等静力矩
P: 制动器释放压力
Pmax: 最大压力
Vo: 油量
Va: 制动器释放控制所用油量



	P	X	Y	PLUGS / 插头				Kg	Code 代码
				A	B	C	D		
FL 620.U	161	104.5	46	M10x1	R 1/8"	R 1/8"	R 1/8"	8	C1103704120 (alb. FE ϕ 25) C1103704120 (alb. FE ϕ 25.4)
FL 635.U	165	91	59	M12x1.5	R 1/4"	R 1/4"	R 1/4"	9	C1109200160

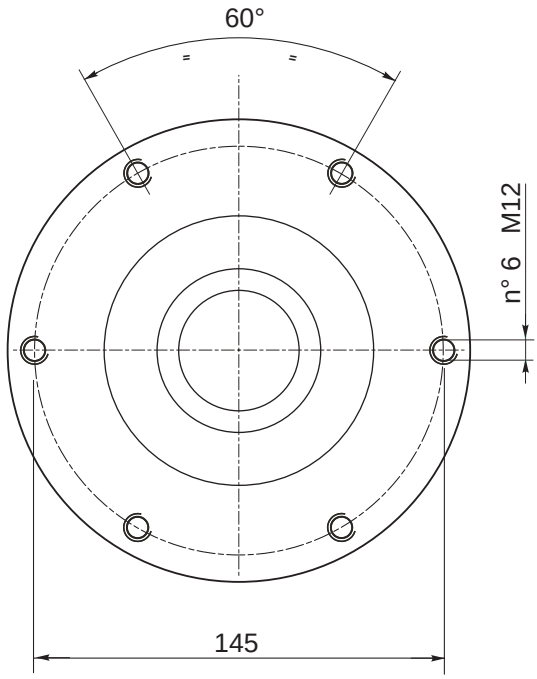
UNIVERSAL INPUTS

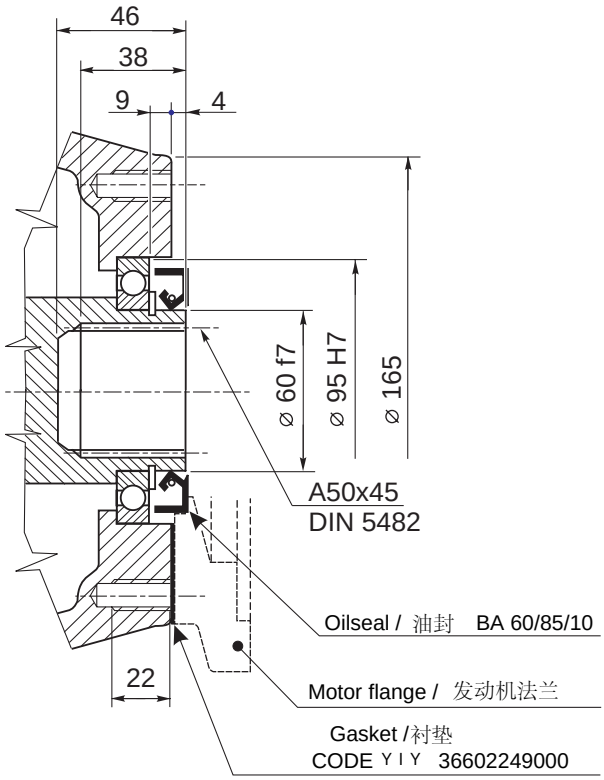
The universal input is a configuration mounted on the gear unit input, enabling the coupling of many types of motorizations by means of a special flange and adapter coupling.
Two different universal input sizes are available according to the sizes mounted as input stage on the gear units.
Applicability can be obtained from the dimensional tables.

普通输入

普通输入是根据齿轮装置输入设置的配置，通过专用的法兰式联轴器和套筒式联轴器，可以将许多类型的机械化连接起来。
根据齿轮装置上设置的输入级尺寸，可以使用两种不同的普通输入尺寸。
可以根据尺寸表来判断适用范围。

00





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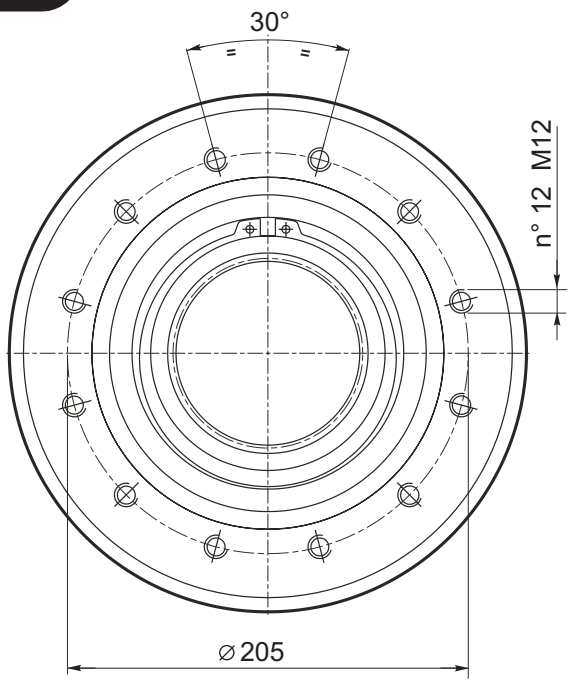
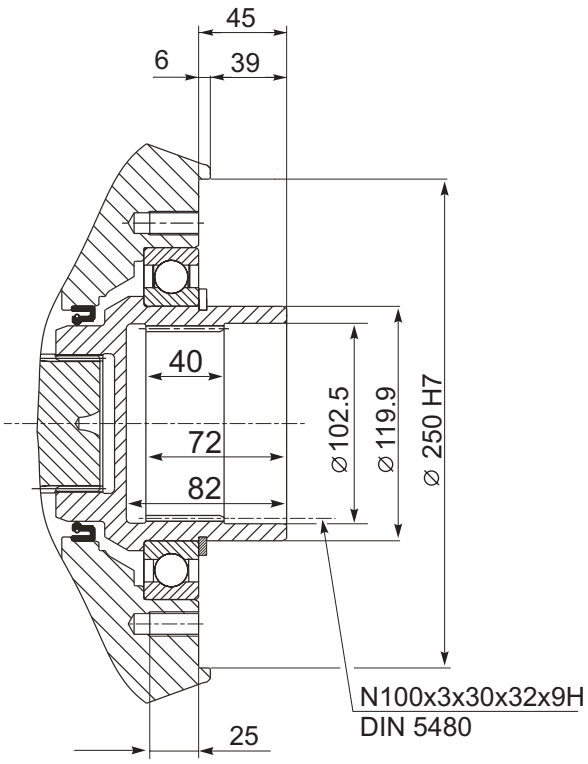
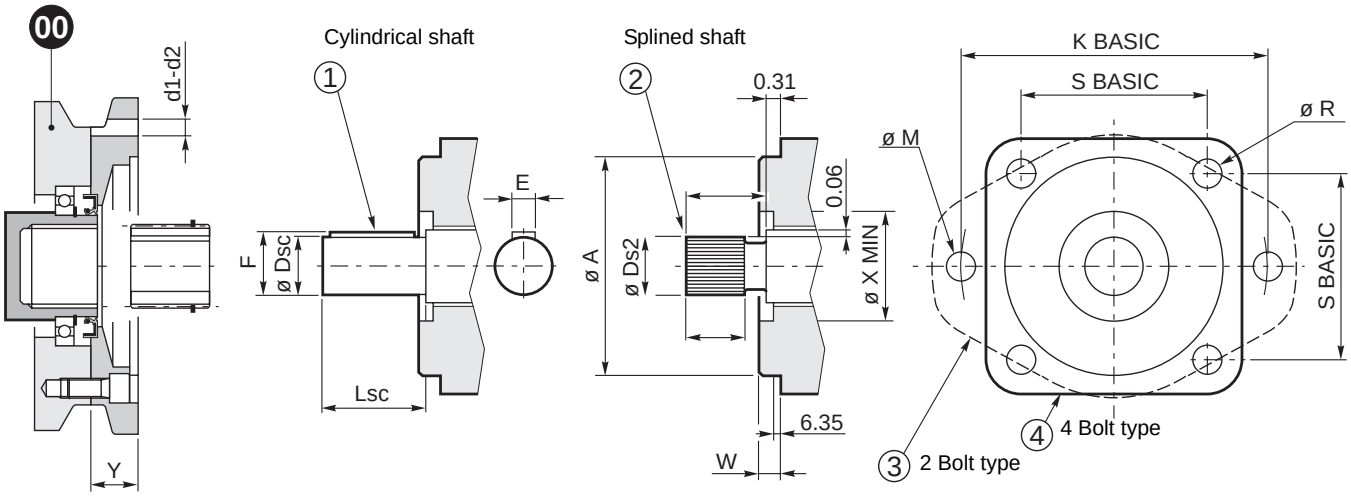


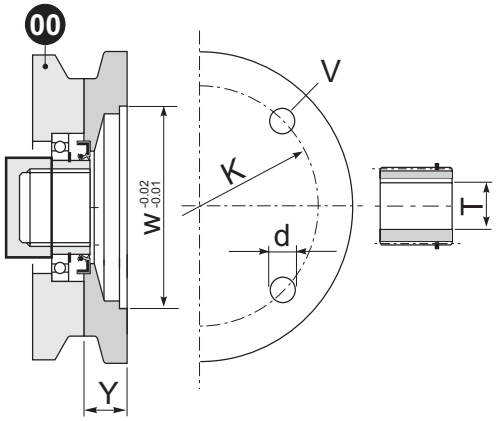


ADAPTORS FOR MOTORS SAE J 744C - NEMA



SAE	Ø A	W	Ø X MIN.	K basic	Ø M	S basic	Ø R	SPLINED SHAFT					CYLINDRICAL SHAFT			
								No.Teeth	30° D.P.	DS2	LS	LA MIN.	Ø DSC	LSC	F	E
A	82.55	6.35	—	106.4	13	75.22	—	9	16/32	15.88	24	7.6	15.88	24	17.6	4
B	101.6	9.65	50.8	146	14.3	89.8	14.3	13	16/32	22.22	33.3	10.2	22.22	33.3	24.95	6.35
B-B	101.6	9.65	50.8	146	14.3	89.8	14.3	15	16/32	25.4	38.1	12.7	25.4	38.1	28.1	6.35
C	127.0	12.7	63.5	181	17.5	114.5	14.3	14	12/24	31.75	47.6	15.2	31.75	47.6	35.2	7.8
C-C	127.0	12.7	63.5	181	17.5	114.5	14.3	17	12/24	38.1	54	17.8	38.1	54	42.25	9.525
D	152.4	12.7	70	228.6	20.6	161.6	20.6	13	8/16	44.45	66.67	20.3	44.45	66.67	49.3	11.1
E	165.1	15.87	70	317.5	27	224.5	20.6	13	8/16	44.45	66.67	20.3	44.45	66.67	49.3	11.1

SAE	Y	No. Bolt	ORDERING CODE Flange with d1			ORDERING CODE Flange with d2		
			d1 Metric	Splined shaft	Cylindrical shaft	d2 Inch	Splined shaft	Cylindrical shaft
A	25	2 - 4	M10 T.U. 15	61125502680	61125500900	3/8 0.59 Min Full Thread	61147702680	61147700900
B	25	2 - 4	M12 T.U. 25	61125700580	61125700460	1/2 - 13 1.00 Min Full Thread	61143900580	61143900460
B-B	25	2 - 4	M12 T.U. 25	61125701940	61125700500	1/2 - 13 1.00 Min Full Thread	61143901940	61143900460
C	28	2	M16 T.U. 20	61101801480	61101800510	5/8-11 0.78 Min F.T.	61145301480	61145300510
		4	M14 T.U. 20			1/2-13 0.78 Min F.T.		
C-C	79	2	M16 T.U. 20	61101802540	61101801750	5/8-11 0.78 Min F.T.	61145302540	61145301750
		4	M14 T.U. 20			1/2-13 0.78 Min F.T.		
D	93	2 - 4	M18 T.U. 20	61103501930	61103501720	3/4 - 10 1.00 Min Full Thread	61147801930	61147801720
E	93	2 - 4	Æ 22 T.U. 30	61118201930	61118201720	Ø 0.875 1.11 Min	61118201930	61118201720

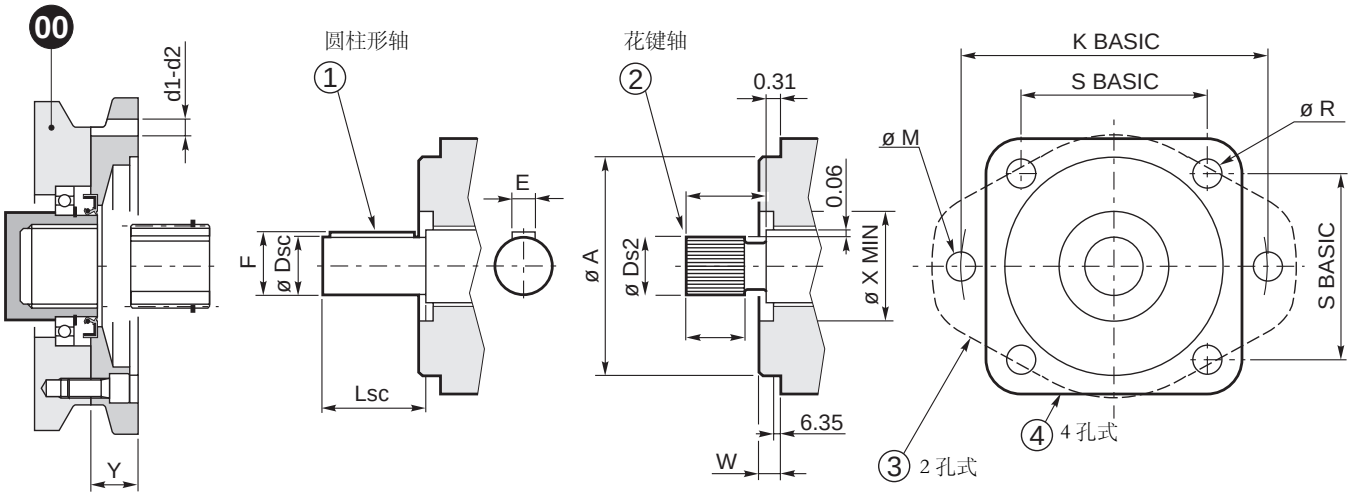


NEMA Motor size	INPUT FLANGE ADAPTER					COUPLING T		ORDERING CODE
	W	V	d	K	Y	Diameter	Key	
143/145 TD	9	4	0.55	10	1.18	0.875	0.187	61135501060
182/184 TC	8.5	4	0.55	7.25	1.18	1.125	0.25	61130800070
182/184 TD	9	4	0.55	10	1.18	1.25	0.25	61135502200
210 TD	9	4	0.55	10	1.18	1.375	0.312	61135502500
213/215 TC	8.5	4	0.55	7.25	1.81	1.375	0.312	61130802500

Inch dimensions

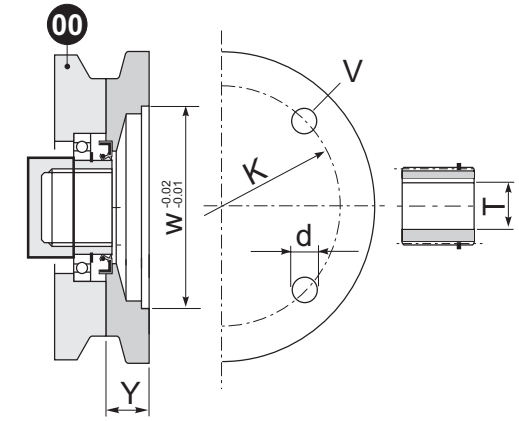
Most requested electric motor adapters are displayed. Other input flange and shaft adapters are available on request.

用于电机SAE J 744C 的适配法兰 ----NEMA国际电气制造业协会



SAE	Ø A	W	Ø X 最小值	K 基本	Ø M	S 基本	Ø R	花键轴					圆柱轴			
								轮齿号	30° D.P.	DS2	LS	LA 最小值	Ø DSC	LSC	F	E
A	82.55	6.35	—	106.4	13	75.22	—	9	16/32	15.88	24	7.6	15.88	24	17.6	4
B	101.6	9.65	50.8	146	14.3	89.8	14.3	13	16/32	22.22	33.3	10.2	22.22	33.3	24.95	6.35
B-B	101.6	9.65	50.8	146	14.3	89.8	14.3	15	16/32	25.4	38.1	12.7	25.4	38.1	28.1	6.35
C	127.0	12.7	63.5	181	17.5	114.5	14.3	14	12/24	31.75	47.6	15.2	31.75	47.6	35.2	7.8
C-C	127.0	12.7	63.5	181	17.5	114.5	14.3	17	12/24	38.1	54	17.8	38.1	54	42.25	9.525
D	152.4	12.7	70	228.6	20.6	161.6	20.6	13	8/16	44.45	66.67	20.3	44.45	66.67	49.3	11.1
E	165.1	15.87	70	317.5	27	224.5	20.6	13	8/16	44.45	66.67	20.3	44.45	66.67	49.3	11.1

SAE	Y	螺栓号	订购代码 法兰 d1			订购代码 法兰 d2		
			d1 公制	花键轴	圆柱轴	d2 英寸	花键轴	圆柱轴
A	25	2 - 4	M10 T.U. 15	61125502680	61125500900	3/8 0.59 Min 全螺纹	61147702680	61147700900
B	25	2 - 4	M12 T.U. 25	61125700580	61125700460	1/2 - 13 1.00 Min 全螺纹	61143900580	61143900460
B-B	25	2 - 4	M12 T.U. 25	61125701940	61125700500	1/2 - 13 1.00 Min 全螺纹	61143901940	61143900460
C	28	2	M16 T.U. 20	61101801480	61101800510	5/8-11 0.78 Min F.T.	61145301480	61145300510
		4	M14 T.U. 20			1/2-13 0.78 Min F.T.		
C-C	79	2	M16 T.U. 20	61101802540	61101801750	5/8-11 0.78 Min F.T.	61145302540	61145301750
		4	M14 T.U. 20			1/2-13 0.78 Min F.T.		
D	93	2 - 4	M18 T.U. 20	61103501930	61103501720	3/4 - 10 1.00 Min 全螺纹	61147801930	61147801720
E	93	2 - 4	Æ 22 T.U. 30	61118201930	61118201720	Ø 0.875 1.11 Min	61118201930	61118201720



国际电气制造业协会 电动机尺寸	主动法兰连接器					联轴器 T		订购代码
	W	V	d	K	Y	直径	键	
143/145 TD	9	4	0.55	10	1.18	0.875	0.187	61135501060
182/184 TC	8.5	4	0.55	7.25	1.18	1.125	0.25	61130800070
182/184 TD	9	4	0.55	10	1.18	1.25	0.25	61135502200
210 TD	9	4	0.55	10	1.18	1.375	0.312	61135502500
213/215 TC	8.5	4	0.55	7.25	1.81	1.375	0.312	61130802500

英制尺寸

大多数要求的电动机连接器已列出。其它主动法兰连接器和轴连接器可以按需提供。

6. SUPPLY CONDITION

The gear units are painted externally with synthetic primer in blue "RAL 5010", unless otherwise specified in the contract. The protection is suitable for withstanding normal industrial environments (also external) and can be finished with synthetic paints. If particular aggressive ambient conditions are foreseen, special painting is required.
The worked external parts of the gear unit, such as the ends of the hollow and solid shafts, support tables, centerings, etc., must be protected with antioxidant oil (tectyl). The parts inside the gear unit casings are painted wiyh oil-proof paint and the kinematic mechanisms are protected with antioxidant oil. Unless otherwise specified in the contract, **all the gear units are supplied without lubrication**: as specified by a special sticker placed on the unit for indicating its condition.

YIY Riduttori S.p.A. products are packed and shipped in boxes or on pallets, as required. Unless otherwise specified in the contract, all YIY products **are packed with packing suitable for withstanding normal industrial environments.**

Every YIY gear unit comes with a specific "Installation and Maintenance" manual. Manufacturer's declaration and certificate of Conformity - UNI EM10204-2.1

7. STORING CONDITIONS

If the product is to be stored for more than 2 months, carry out as follows:
Protect the shafts and centerings with a film of grease and/or anticorrosive protection liquids.
Completely fill the gear unit and possible multidisc brake with suitable oils.
Store in a dry place with temperature of between -5°C and +30°C.
Protect the packages from dirt, dust and damp.
When storing for more than 6 months the rotating seals will loose efficiency. It is advisable to carry out a periodical check,manually turning the internal gears, turning the input shaft; with negative multidisc brake, release the brake, with hydraulic pump or similar (for brake release pressure see the chapter Brakes). Possible replacement of the gaskets on starting is advisable.

8. INSTALLATION

The gear units must be carefully installed by suitably trained
technical personnel.
Preparation for operation must occur in compliance with all the technical specifications given in the dedicated Dimensional Drawing.

All installation operations must comply with maximum safety regarding:
1 safety of operators and third parties
2 correct operation of the reduction gear unit
3 operational safety

6. 供应条件

除非在合同中指明，否则齿轮装置外表喷漆为蓝色合成底漆 “RAL 5010”。这种保护符合正常工业环境 （也是外部的）的要求，可以使用合成油漆。如果预料要在某种侵蚀性条件下使用，则须使用专用油漆。
处理过的齿轮装置外部部件，如空心轴和实心轴的末端、支撑台、中心孔等等，都必须涂上起保护作用的抗氧化油 (tectyl)。齿轮箱内的部件都喷上了防油油漆，运动机构涂上了起保护作用的抗氧化油。除非在合同中指明，否则**所有齿轮装置在交货时 均不加润滑油**：齿轮装置上的不干胶标签指示其使用条件。
根据要求，YIY Riduttori S.p.A.产品使用包装箱或托盘包装和交付。
除非在合同中指明，否则所有 YIY 产品 **都用符合正常工业环境要求的包装材料包装。**

每套 YIY 齿轮装置都附有配套的“安装和维护”手册。制造商的声明和合格证 - UNI EM10204-2.1。

7. 储存条件

如果产品储存时间超过两个月，请执行如下操作:
在轴和中心孔上涂上润滑油层和/或防腐蚀液体。
用合适的油剂灌满齿轮装置和可能的多片式制动器。
储存于温度在-5度和+30度之间的干燥处。
保证包装防污、防尘和防潮。
如果储存时间超过六个月，旋转式密封圈将失效。建议定期进行检查，用手转动内部齿轮，转动输入轴，用负多片式制动器、液压泵或类似部件释放制动器 （关于制动器释放压力，请参阅“制动器”章节） 。建议在开始使用时更换密封垫。

8. 安装

齿轮装置必须由经过培训的合格技术人员精心安装。
必须按专用 “尺寸图”中列出的所有技术要求进行准备工作。

所有安装操作都必须遵守确保最高安全的以下要求:
1 操作人员和第三方的安全
2 正确操作减速齿轮装置
3 操作安全

- Any arbitrary tampering with the gear transmission and any accessories possibly originally arranged is strictly prohibited.
  All lifting and carrying operations must be carried out avoiding impacts on the shaft ends, using special lifting straps or the eye-bolts specially arranged, making sure that the lifting equipment is of adequate capacity.
- Welding work on the transmissions is absolutely prohibited.
- Any installation or maintenance work must be carried out with the unit stopped; therefore it is a good rule to prevent the possibility of accidental engaging of the driving power.
- Regarding the input side, often the electric or hydraulic motors are mounted with the well-known YIY Universal flange coupling system (See the chapter Universal Input). Remember that size "00" is normally used for motors of weights up to approx. 100 kg and max. torque 1000 Nm. With heavier motors, universal flange S00 (if available) or specific flange couplings can be used: contact the YIY Technical Commercial Service.
- With connections involving the use of revolving parts such as shafts, joints or pulleys with belts, adequate accident-prevention guards must be provided.

With flange-mounted gear units, it is advisable to comply with the following requirements:
The structures to which they are fixed must be rigid, with perfectly flat machined unpainted support surfaces,normal with driven shaft, and with centerings to tolerance H8.
The contact surfaces must be duly and perfectly greased;the unit must be carefully aligned with the driven shaft, especially with gear units with female splined output shaft which, it must be remembered, do not take external loads.
For fixing, use screws of class min. 10.9 with tightening at 75% yielding.
During assembly, violent axial impacts must absolutely be avoided since they could damage the internal bearings. The control parts to be fitted on the cylindrical output shaft must be worked according to the specifications given in the chapter:"Output configurations".

NB:
With right-angle gear units, with male input shaft, on installation the input shaft may possibly not be in its ideal position.
To avoid this situation:
- with connections by means of joints allowing alignment adjustment, measure the existing misalignment,check the acceptable misalignment with the joint and
- if the value is greater, shim the motor to bring it within permissible play
- with connection by means of mechanical parts not allowing take-up of play, align the motor by shimming.

- 严格禁止任何随意篡改原装齿轮传动和任何附件的行为。
- 执行所有提升和搬运操作时都严禁撞击轴端，使用专用提升带或特别设计的吊环螺栓，以确保提升装置具有足够的力量。
- 绝对禁止对传送带进行焊接。
- 所有安装或维护工作都必须在齿轮装置停止转动时进行，因此防止意外开启驱动电源是一条重要的安全原则。
- 至于输入端，通常使用久负盛名的 YIY 通用法兰式联轴系统安装电动机或液压发动机（请参阅“通用输入”章节）。请记住尺寸“00”通常用于重量最大 100 公斤、力矩最大 1000 Nm 的发动机。对于更重的发动机，通常可以使用法兰 S00（如果可用）或特定的法兰联轴器：请与 YIY 技术商业服务部联系。
- 要与轴、带有传动带的接头或皮带轮等旋转件的连接时，必须提供适当的事故预防措施。

对于装备有凸缘的齿轮装置，建议遵循以下要求：
连接固定设备必须坚硬，支持平面未上漆，经机械加工非常平坦，通常使用从动轴，中心孔公差为 H8。
接触面必须适时涂上适量润滑油；齿轮装置必须小心地与从动轴对齐，特别是对于具有内花键从动轴的齿轮装置更是如此，要牢记不得施加外部载荷。
固定时，请使用号数最小的 10.9 螺丝，紧固到 75% 的程度。
在装配过程中，绝对要避免猛烈的轴向撞击，以免损坏内部轴承。必须按照“输出配置”一章中所述要求在圆柱从动轴上安装控制部件。

NB:
对于带凸输入轴的直角齿轮装置，安装在输入轴上可能不是理想位置。
避免这种情况：
- 对于要考虑对齐调整的接头连接，请测量现有的安装误差，然后根据接头检查可接受的安装误差
- 如果误差值过大，请给发动机加垫片以使其进入允许范围
- 对于使用机械部件的连接，不允许进行调整，请加垫片来对齐发动机。

9. FRICTION COUPLINGS

The friction couplings are mounted on FS output shaft. Given below are the characteristics and measures to be considered for correct assembly and disassembly of these parts used for the transmission of motion.

9. 摩擦联轴器

摩擦联轴器安装在 FS 输出轴上。下面介绍正确装卸这些传动部件时要考虑的特征和措施。

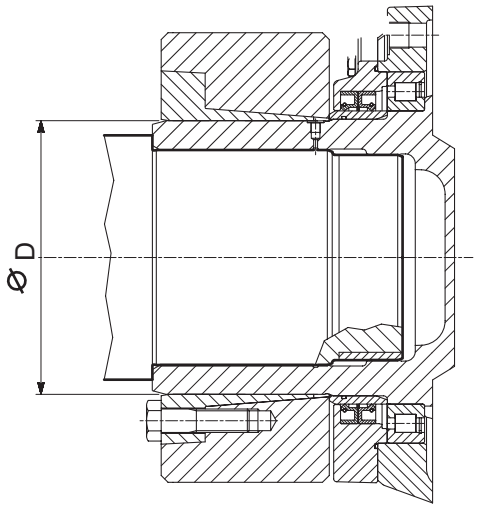


Fig. / 图 1

	TN [Nm]	D [mm]	TGN [Nm]	Coupling type 联轴器类型	YIY code YIY 编码
S300	34000	185	72200	3009-185X320	448J43GT800
S400	48000	185	96000	3208-185X320	448J43GT900
S600	64000	220	139000	3208-220X370	448J43GU000
S850	90000	240	187000	3208-240X405	448J43GU100
S1200	133000	280	355000	3208-280X460	448J43GU200
S1800	190000	300	397000	3208-300X485	448J43GU300
S2500	260000	340	604000	3208-340X570	448J43GU400
S3500	370000	360	766000	3208-360X590	448J43GU500

T_N = Gear unit nominal torque / 齿轮装置额定力矩
T_{GN} = Joint nominal torque / 接头额定力矩
D = Hub diameter / 轮毂直径

ASSEMBLY 装配

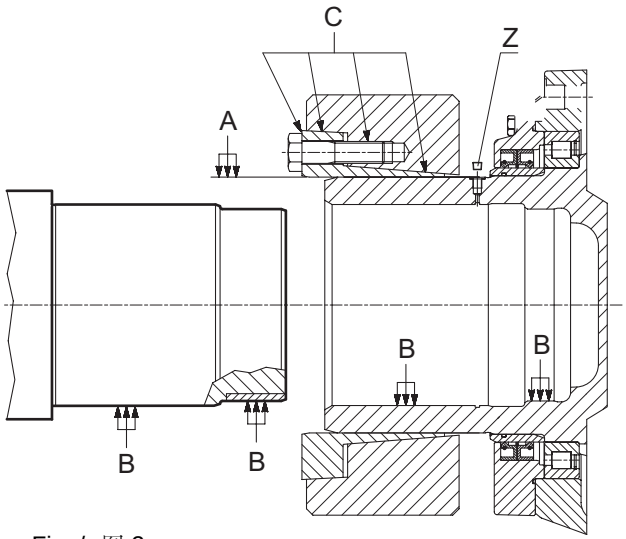


Fig. / 图 2

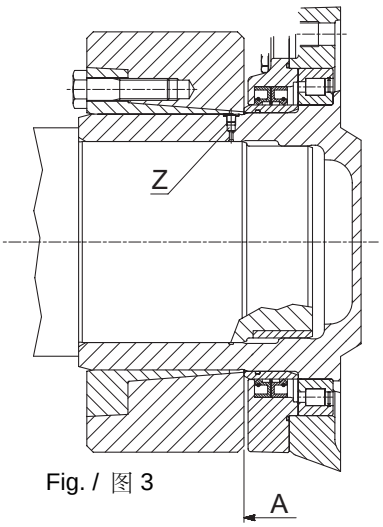


Fig. / 图 3

1) Carefully clean and remove all grease from the shaft and its seat (Fig.2 points B). To facilitate subsequent disassembly, it is advisable to execute the small shaft centering by means of a suitably worked bushing (Fig.3).

2) Lubricate the joint seat (Fig.2 point A). When new, the joint does not have to be disassembled for greasing. Greasing of areas C is advisable only when reinstalling a used joint.

1) 仔细地清除轴和轴座上的所有润滑油（图 2 B 点）。为方便以后拆卸，建议使用合适的套筒进行小轴中心调整 （图 3）。

2) 给接头座加润滑油（图 2 A 点）。如果是新接头，则无需拆卸加注润滑油。建议只在重新安装使用过的接头时给C区加注润滑油。

3) Fit the joint on the gear unit without tightening the screws and leave enough space for removing the cap (Fig.1 point Z) which allows air bleeding when fitting the gear unit on the machine shaft. If the mounting position is vertical and the relative shaft is facing downwards, make sure the joint cannot slip off and fall. In all cases, never tighten the screws before fitting the shaft in its seat.

4) Fit the shaft in its seat. Assembly must occur without any interference and this is only possible with exact gear unit/shaft alignment, carried out with the aid of suitable lifting equipment.

CAUTION ! Assembly must be carried out without applying axial forces, blows or impacts that could damage the gear unit bearings.

5) Refit the cap (Fig.2 point Z) to protect the coupling from oxidation and move the joint in the final position (Fig.3 point A) before tightening the screws.

6) Tighten the screws gradually in a circular sequence, using a suitable torque wrench, chosen according to design distance "X" and set to the driving torque given in the table. Carry out the last tightening, setting the wrench to a torque of 3-5% higher than that given.

Set the wrench to the torque specified in the table and make sure that no screws can be further tightened, otherwise repeat the procedure from point 5.
Assembly is complete and correct if the front surfaces of the inner and outer ring are on the same level.
The driving torque does not have to be checked after the joint has gone into operation.

7) Protect the joint area with the special sheet casing, (Fig.4 point P) if there is the risk of stones, sand or other material that could damage the joint or the gear unit seals.

3) 将接头安装到齿轮装置上无需拧紧螺丝，可留下足够的空间供螺丝帽（图 1 Z 点）移动，这样将齿轮装置安装到机器轴上时便于放气。如果安装位置垂直，相对的轴正面向前，请确保接头不会脱开掉落。任何情况下，只有在将轴安装到轴座上后，才能拧紧螺丝。

4) 将轴安装到轴座中。装配必须在没有任何干扰的情况下使用合适的提升装置进行，只有如此，才能精确对准齿轮装置 / 轴。

小心! 装配时不得施加可能损坏齿轮装置轴承的轴向力、突然打击或撞击。

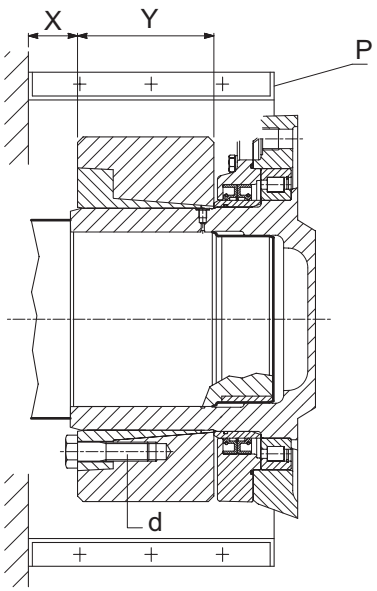
5) 重新调整螺丝帽（图 2 Z 点）来保护联轴器免于氧化，同时将接头移动到终点位置（图 3 A 点），然后拧紧螺丝。

6) 使用合适的力矩扳手按顺序逐渐拧紧螺丝，根据设计距离"X"进行选择并调整为表中给定的驱动力矩。执行最后的拧紧操作，将扳手的力矩调整为比给定值高 3-5%。

将扳手的力矩调整为表中的指定值，并确保所有螺丝都已拧紧到位，否则请重复从第 5 点开始的步骤。
安装到此完成，如果内圈和外圈的正面位于同一平面，则说明安装正确无误。
接头开始运转后，可以不检查驱动力矩。

7) 如果有石头、沙子或其它材料，可能损坏接头或齿轮装置密封圈，请给接头区套上专用外套（图 4 P 点）。

Fig. / 图 4



	Joint 接头	Y			X [mm] for type of wrench 适用扳手类型		
			d	T [Nm]			
S300	3009-185X320	85	M16	290	50	100	58
S400	3208-185X320	112	M20	490	55	115	58
S600	3208-220X370	134	M20	490	55	115	58
S850	3208-240X405	144	M20	490	55	115	58
S1200	3208-280X460	172	M24	840	65	120	70
S1800	3208-300X485	176	M24	840	65	120	70
S2500	3208-340X570	206	M27	1250	—	125	85
S3500	3208-360X590	210	M27	1250	—	125	85

DISASSEMBLY 拆卸

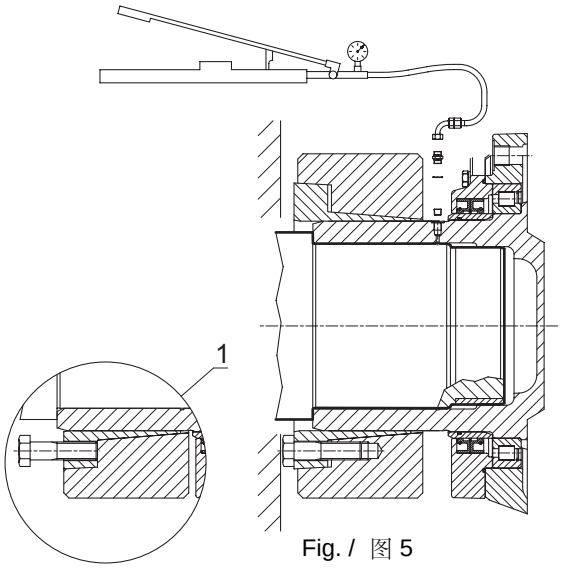


Fig. / 图 5

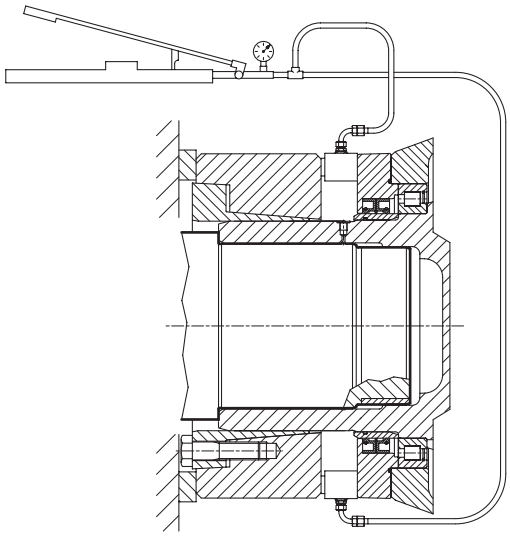


Fig. / 图 6

1) Loosen the screws in repeated sequence until the joint can be moved on the hub.
IMPORTANT : do not undo the screws completely until the rings separate on their own. High axial forces could cause a violent removal, with subsequent danger for operators.

2) If the rings do not separate on their own after loosening the screws, transfer some of them to the extraction holes of the inner ring (Fig.4 detail 1) and, tightening them, separate the inner ring from the outer ring.

3) Slide the joint axially as shown in fig.4 to allow use of the hole G 1/8" for the introduction of pressurized oil (max. 1000 bar) to facilitate removing the gear unit from the machine shaft.
If, on using the method described, the gear unit cannot be freed, because the shaft coupling does not ensure pressure tightness, operate as shown in fig. 5. Available space permitting, using the special hydraulic pushers, operate on two bosses at 180° located on the seal covers, without exceeding the following axial loads:

1) 以重复的顺序拧松螺丝，直到接头可以在轮毂上转动。
重要：在钢圈尚未完全脱离前，切勿完全拧松螺丝。较大的轴向力会导致剧烈的移动，可能给操作人员带来危险。

2) 如果拧松螺丝后，钢圈没有自动脱离，请将部分钢圈转移到内钢圈的取出孔（图 4 细节 1），然后拧紧它们，使内钢圈脱离外钢圈。

3) 如图 4 所示，轴向滑动接头，从而可从孔 G 1/8 倒入加压油 （最大 1000 bar），以便于从机器轴上卸下齿轮装置。
如果在使用上述方法时，由于联轴器不能确保耐压紧密度而无法释放齿轮装置，请按照图 5 进行操作。工作空间允许使用专用液压推进器，在位于密封罩上 180 暗牧礁睢朱蓖蛊鸠拷胁僮蝎换岢铝兄嵯蚋涸兀

	Axial load / 轴向负载 [N]
S300	30000
S400	30000
S600	45000
S850	50000
S1200	70000
S1800	80000
S2500	100000
S3500	115000

4) If the gear unit is disassembled some time after start-up, it is necessary to remove the joint from the hub, separate the tapered rings and clean any residuals of dirt or rust from all the surfaces relative to fitting.
Before refitting the clamping unit, carefully clean it and lubricate as shown in fig.2 (points C).

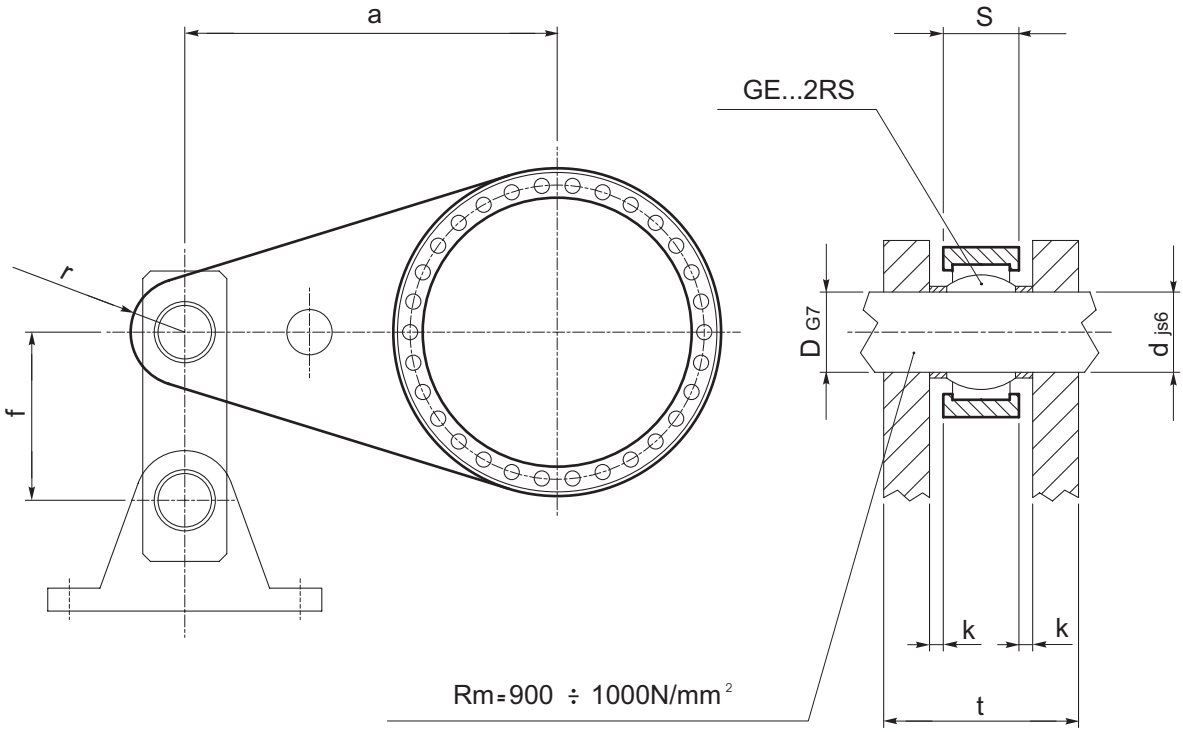
4) 如果是在开机过一段时间后拆卸齿轮装置，则需要将接头从轮毂上卸下，使锥形圈脱离，并清除安装表面上的所有残余污垢或铁锈。
在重新装配合模装置前，请按图 2 （C 点）仔细清洁和润滑。

10. TORQUE ARM

INSTRUCTIONS FOR TORQUE ARM CONSTRUCTION AND ANCHORING

10. 力臂

有关安装和固定力臂的使用说明



	a min a 最小 [mm]	s [mm]	r min r 最小 [mm]	f min f 最小 [mm]	GE…2RS	D d [mm]	k [mm]	t min t 最小 [mm]
S300	600	30	35	150	35	35	4	70
S400	700	32	40	160	40	40	4	72
S600	800	32	40	180	40	40	4	72
S850	1000	35	45	200	45	45	4	81
S1200	1000	40	55	230	50	50	5	90
S1800	1200	50	60	250	60	60	5	104
S2500	1400	55	70	300	70	70	5	115
S3500	1600	60	80	350	80	80	5	120

TORQUE ARM ASSEMBLY

1) The torque arm anchorage point must be floating in all directions. Therefore ball joints must be used in all connections.

2) It is advisable to use long life ball joints, protecting rubbing surfaces with PTFE. Alternatively, "steel to steel" type joints can be used, providing for the possibility of periodical greasing.

3) The anchorage connecting rod must be parallel to the torque arm in order to guarantee, unloaded, the side clearance K which ensures free movement of the structure in the event of deformation.

4) The fixed support to which the second end of the connecting rod is connected must ensure adequate anchorage for the load.

5) The torque arm and relevant connecting rod can have different design solutions to those proposed, but the following arrangements must be respected.

   - The torque arm must be perfectly straight
   - If welded parts are provided for, any deformations must be sanded, normalized and machine tool corrected
   - The contact area of the torque arm at the flanging with the reduction unit must be perfectly flat
   - Before connecting the torque arm to the gear unit, carefully remove all traces of grease from the contact surfaces.
     WARNING Do not carry out any welding work involving the gear unit, even as an earthing!

6) Always use a torque wrench for tightening the connection screws.

7) The drawing is only by way of example, since the correct configuration depends on the gear unit rotation direction. In fact, during work it is advisable for the connecting rod to be in traction and not compression. Therefore mounting on the opposite side with respect to that represented may be convenient. If necessary, due to specific encumbrance the connecting rod can be assembled upwards.

8) When carrying out an assembly by means of friction coupling and torque arm, remember that the weights of the gear unit, the torque arm and all the elements connected to them, bring about loads and tipping moments that are supported by the output stage planetary carrier bearings. Therefore the relative position of all the masses involved in transmitting power must be appraised in the design phase, in order to minimize the resultant value on the bearings. Likewise, the weight of the components connected to the gear unit must be limited, carefully appraising the thicknesses of the structures actually necessary for supporting the stresses, and decentralizing all the elements not involved in power transmission. An incorrect design can shorten the life of the bearing and gears due to possible excessive elastic deformation of the stages and determine the possibility of slipping and seizing of the friction coupling.

力臂的装配

1) 力臂的固定点必须能够向任何方向移动。因此必须在所有连接处都使用球形接头。

2) 建议使用经久耐用的球形接头，同时用聚四氟乙烯保护摩擦面。或者使用“全钢”型接头，以便定期加润滑油。

3) 固定连杆必须与力臂平行，才能保证在发生变形后空载时侧面间隙 K 能确保构件的自由运动。

4) 连杆第二末端连接的固定支座必须确保足够固定负载。

5) 力臂和相关的连杆可以有不同的设计方案，但必须遵守以下要求：

   - 力臂必须完全笔直
   - 如果采用焊接部件，任何变形部位必须磨光、规范化和用机床修正
   - 力臂在凸缘上与减速齿轮装置的接触面必须平滑
   - 在将力臂与齿轮装置连接起来之前，请仔细清除接触面的所有润滑油痕迹。
     警告 不要对齿轮装置进行任何焊接工作，如接地！

6) 拧紧连接螺丝时务必使用力矩扳手。

7) 由于正确的配置要考虑齿轮装置的旋转方向，所以本图仅仅起示例作用。实际上，建议在工作中使连杆处于牵引和放松状态。因此，在图示相反的方向安装可能更为方便。如有必要，在存在特殊障碍的情况下，可以将连杆向上装配。

8) 当使用摩擦联轴器和力臂进行装配时，请记住齿轮装置、力臂及与其连接的所有部件的重量，共同构成由输出级行星齿轮架轴承承受的负载和倾斜力矩。因此，影响发送功率的所有群件的相对位置必须在设计阶段估定，才能使轴承最后承受的力量减至最小。同样，必须限制与齿轮装置相连的零件的重量，因此要仔细估计支撑这些压力实际所需构件的厚度，并分散与动力传输无关的部件。由于错误的设计可能导致跳板出现过度的弹性变形，还可能导致打滑和摩擦联轴器被卡住，因此会缩短轴承和齿轮的寿命。

11. LUBRICATION

ＹＩＹ gear units are supplied without lubricant; therefore the user must carry out correct filling before starting the machine.

FUNDAMENTAL CHARACTERISTICS OF THE OILS

The important parameters to consider when choosing the type of oil are:
- viscosity at nominal operating conditions
- additives

The oil must lubricate the bearings and the gears and all these components work inside the same box, in different operating conditions. We will consider the individual parameters.

Viscosity

Nominal viscosity is referred to a temperature of 40 °C, but rapidly decreases with an increase in temperature. If the operating temperature is between 50 °C and 70 °C, a nominal viscosity can be chosen according to the following guide table, choosing the highest viscosity if the highest temperature is foreseen.

11. 润滑油

ＹＩＹ齿轮装置不附带润滑油，因此用户必须在启动机器之前正确加注润滑油。

机油的基本特性

选择机油类型时需要考虑的重要参数：
- 正常工作条件下的粘度
- 添加剂

机油必须能够在不同工作条件下润滑轴承和齿轮以及机箱内的所有部件。我们将考虑其特有参数。

粘度

额定粘度是以40 度的温度为参考，但随着温度的增加迅速降低。如果工作温度在50 度至70 度，可以根据下面的指导表格来选择通用粘度。如果是高温条件，请选择最高粘度的机油。

n_2 [rpm]	50 °C	70°C
> 20	**VG 150**	**VG 220**
> 5	**VG 220**	**VG 320**
< 5	**VG 320**	**VG 460**

Special attention must be paid to very loaded output stages and with very low speeds (<1 rpm). In such cases, always use high viscosity oils and with a good amount of Extreme Pressure (EP) additive.

Additives

In addition to the normal antifoaming and antioxidant additives, it is important to use lubricating oils with additives that provide EP (extreme-pressure) and antiwear properties, according to ISO 6743-6 L-CKC or DIN 51517-3 CLP. Therefore it will be necessary to find products with EP characteristics all the stronger (type MOBILGEAR SHC) the slower the gear unit speed. It should be remembered that the chemical compounds replacing hydrodynamic lubrication are formed to the detriment of the original EP load. Therefore, with very low speeds and high loads it is important to respect the maintenance periods so as not to excessively diminish the lubricating characteristics of the oil.

请特别注意超高载荷输出级和特低速(<1 rpm)。对于这些情况，务必使用高粘度机油以及大量的极压 (EP) 添加剂。

添加剂

除了通用的防沫剂和抗氧化添加剂外，至关重要的是根据 ISO 6743-6 L-CKC 或 DIN 51517-3 CLP 标准，在润滑油中使用支持 EP（极压）和抗磨损特性的添加剂。因此，有必要寻找具有 EP 特性的产品，所有粘性越强的机油 （MOBILGEAR SHC 类型）齿轮装置的速度越低。请记住，形成替代液压润滑的化合物会损害原始 EP 载荷。因此，对于特低速和高载荷条件，最重要的是重视维护周期，避免机油的润滑特性显著下降。

Types of oils
The oils available generally belong to three big families.

1. Mineral oils
2. Poly-Alpha-Olefin synthetic oils
3. Poly-Glycol synthetic oils

The most suitable choice is generally tied to the conditions of use.
Gear units that are not particularly loaded and with a discontinuous operating cycle, without considerable temperature ranges, can certainly be lubricated with mineral oil.
In cases of heavy use, when the gear units are very loaded and in a continuous way, with resultant temperature increase, it is best to use polyalphaolefin synthetic lubricants (PAO).
Polyglycol oils (PG) are to be used strictly in the case of applications with heavy sliding between contacts, e.g. in worms. They must be employed with great care since they are not compatible with the other oils but are completely mixable with water. This phenomenon is particularly dangerous, since it is not noticed, but rapidly diminishes the lubricating characteristics of the oil.
In addition to the above, there are also hydraulic oils and oils for the food industry.
The former are used for the command of negative brakes. For better environmental protection there are several biodegradable types.
The latter have a specific use in the food industry since they are special products that are not harmful to the health,
Various producers supply oils belonging to all the families with very similar characteristics. A comparison table of the best known brands is given later on.

Contamination.
During normal operation, due to running-in of the surfaces, metallic microparticles will inevitably form in the oil. This contamination can shorten the life of the bearings, resulting in early breakdown of the gear unit. To limit and control this phenomenon, without resorting to frequent and costly oil changes, a suitable auxiliary oil circulating system must be provided.
This system offers the dual advantage of controlling the level of contamination with the use of special filters and stabilizing the operating temperature at a level more suitable for guaranteeing the required viscosity. In fact, the specific thermal capacity of the gear unit is sometimes insufficient to ensure a correct and stable operating temperature level. The auxiliary systems available from YIY Riduttori will be described later on.

For lubrication problems with gear units intended for particular uses, for construction type and operating parameters, it is advisable to contact the YIY Technical Commercial service.

机油类型
常用的机油一般属于三大类。

1. 矿物油
2. 聚烯类 (Poly-Alpha-Olefin) 合成油
3. 聚乙二醇 (Poly-Glycol) 合成油

最适合的选择通常与使用条件有关。
处于非特殊载荷、间断运转周期、非特殊温度范围的齿轮装置，当然可以使用矿物油润滑。
在使用率高时，对于处于高负荷连续运转，并导致温度上升的齿轮装置，最好使用聚烯烃合成润滑油 (PAO)。
聚乙二醇油 (PG) 严格地用于接触面滑动要求高的应用，例如，蜗杆。由于此类机油与其它机油不兼容，并且完全溶于水，所以务必小心使用。这一现象特别危险，机油的润滑特性不经意间即可急剧下降。
除了上述类型，还有液压油和食品工业用油。
前者用于减速制动器命令。为了更好地保护环境，还有几种生物降解型机油。
后者在食品工业具有特殊用途，因为它们是无害健康的特殊产品。
众多生产商提供的所有机油都属于上述种类，并且具有类似的特性。稍后给出著名品牌产品的对照表。

污物。
在正常运转过程中，由于表面的持续运转，使得金属微粒不可避免地进入机油。这些污物会缩短轴承的寿命，导致齿轮装置提前报废。若要不借助于频繁更换昂贵的机油，而对这种现象予以限制和调控，必须配备一套适合的辅助机油循环系统。
该系统提供双重优势：一方面，利用特殊过滤器控制污物水平；另一方面，使运转温度稳定在机油必需的粘度水平。事实上，齿轮装置的标定热容量有时不足以确保正常和稳定的运转温度水平。YIY Riduttori提供的辅助系统稍后介绍。

有关特殊用途齿轮装置的润滑问题，以及施工类型和运转参数，请咨询 YIY 技术商务服务部。

Table of lubricant oils for general use 一般用途润滑油表

Manufacturer 生产商	Mineral oils 矿物油			Poly-Alpha-Olefin synthetic oils (PAO) 聚烯类合成油 (PAO)			Polyglycol synthetic oils(PG) 聚乙二醇合成油 (PG)		
	ISO VG 150	ISO VG 220	ISO VG 360	ISO VG 150	ISO VG 220	ISO VG 360	ISO VG 150	ISO VG 220	ISO VG 360
ADDINOL	Transmission Oil CLP 150	Transmission Oil CLP 220	Transmission Oil CLP 320	Eco Gear 150 S	Eco Gear 220 S	Eco Gear 320 S	Luboil RS 150	Luboil RS 220	-
AGIP	Blasia 150	Blasia 220	Blasia 320	-	Blasia SX 220	Blasia SX 320	Blasia S 150	Blasia S 220	Blasia S 320
ARAL	Degol BG 150 Plus	Degol BG 220 Plus	Degol BG 320 Plus	Degol PAS 150	Degol PAS 220	Degol PAS 320	Degol GS 150	Degol GS 220	Degol GS 320
BP	Energol GR-XP 150	Energol GR-XP 220	Energol GR-XP 320	Enersyn EPX 150	Enersyn EPX 220	Enersyn EPX 320	Enersyn SG 150	Enersyn SG-XP 220	Enersyn SG-XP 320
CASTROL	Alpha SP 150	Alpha SP 220	AlphaSP 320	Alphasyn EP 150	Alphasyn EP 220	Alphasyn EP 320	Alphasyn PG 150	Alphasyn PG 220	Alphasyn PG 320
CEPSA	Engranajes HP 150	Engranajes HP 220	Engranajes HP 320	Engranajes HPX 150	Engranajes HPX 220	Engranajes HPX 320	Engranajes HPS 150	Engranajes HPS 220	Engranajes HPS 320
CHEVRON	Ultra Gear 150	Ultra Gear 220	Ultra Gear 320	Tegra Synthetic Gear 150	Tegra Synthetic Gear 220	Tegra Synthetic Gear 320	HiPerSYN 150	HiPerSYN 220	HiPerSYN 320
DEA	Falcon 150	Falcon 220	Falcon 320	Intor 150	Intor 220	Intor 320	Polydea 150	Polydea 220	Polydea 320
ERG	Roxin S EP 150	Roxin S EP 220	Roxin S EP 320	-	-	-	-	-	-
ESSO	Spartan EP 150	Spartan EP 220	Spartan EP 320	Spartan S EP 150	Spartan S EP 220	Spartan S EP 320	Glycolube 150	Glycolube 220	Glycolube 320
FUCHS	Renolin CKC 150	Renolin CKC 220	Renolin CKC 320	Renolin Unisyn CKC 150	Renolin Unisyn CKC 220	Renolin Unisyn CKC 320	Renolin PG 150	Renolin PG 220	Renolin PG 320
LUBRITECH	Gearmaster CLP 150	Gearmaster CLP 220	Gearmaster CLP 320	Gearmaster SYN 150	Gearmaster SYN 220	Gearmaster SYN 320	Gearmaster PGP 150	Gearmaster PGP 220	Gearmaster PGP 320
KLüBER	Klüberoil GEM 1-150	Klüberoil GEM 1-220	Klüberoil GEM 1-320	Klübersynth EG 4-150	Klübersynth EG 4-220	Klübersynth EG 4-320	Klübersynth GH 6-150	Klübersynth GH 6-220	Klübersynth GH 6-320
LUBMARINE	Epona Z 150	Epona Z 220	Epona Z 320	-	Epona SA 220	Epona SA 320	-	-	-
MOBIL	Mobilgear XMP 150	Mobilgear XMP 220	Mobilgear XMP 320	Mobilgear SHC XMP 150	Mobilgear SHC XMP 220	Mobilgear SHC XMP 320	Glygoyle 22	Glygoyle 30	Glygoyle HE320
MOLIKOTE	L-0115	L-0122	L-0132	L-1115	L-1122	L-1132	-	-	-
NILS	Ripress EP 150	Ripress EP 220	Ripress EP 320	Ripress Synt Food 150	Ripress Synt Food 220	Ripress Synt Food 320	Ripress Synt 150	Ripress Synt 220	Ripress Synt 320
OMV	Gear HST 150	Gear HST 220	Gear HST 320	-	Gear SHG 220	Gear SHG 320	Gear PG 150	Gear PG 220	Gear PG 320
OPTIMOL	Optigear BM 150	Optigear BM 220	Optigear BM 320	Optigear Synthetic A 150	Optigear Synthetic A 220	Optigear Synthetic A 320	Optiflex A 150	Optiflex A 220	Optiflex A 320
PAKELO	Erolube EP-C ISO 150	Erolube EP-C ISO 220	Erolube EP-C ISO 320	Gearsint EP ISO 150	Gearsint EP ISO 220	Gearsint EP ISO 320	Allsint EP-C ISO 150	Allsint EP-C ISO 220	Allsint EP-C ISO 320
PENNZOIL	Super Maxol EP 150	Super Maxol EP 220	Super Maxol EP 320	-	-	-	-	-	-
Q8	Goya 150	Goya 220	Goya 320	El Greco 150	El Greco 220	El Greco 320	Gade 150	Gade 220	Gade 320
ROLOIL	EP/150	EP/220	EP/320	-	-	-	Sincat 150	Sincat 220	Sincat 320
ROYAL PURPLE	-	-	-	Synergy 150	Synergy 220	Synergy 320	-	-	-
SHELL	Omala 150	Omala 220	Omala 320	Omala HD 150	Omala HD 220	Omala HD 320	Tivela S 150	Tivela S 220	Tivela S 320
SINCLAIR	Warrior EP/ NL 150	Warrior EP/ NL 220	Warrior EP/ NL 320	-	-	-	-	-	-
SUNOCO	Sun EP 150	Sun EP 220	Sun EP 320	Duragear 150	Duragear 220	Duragear 320	-	-	-
TAMOIL	Carter EP Lubricant 150	Carter EP Lubricant 220	Carter Ep Lubricant 320	-	-	-	-	-	-
TEXACO	Meropa 150	Meropa 220	Meropa 320	Pinnacle EP 150	Pinnacle EP 220	Pinnacle EP 320	-	Synlube CLP 220	Synlube CLP 320
TOTAL	Carter EP 150	Carter EP 220	Carter EP 320	Carter SH 150	Carter SH 220	Carter SH 320	Carter SY 150	Carter SY 220	Carter SY 320
TRIBOL	1100/150	1100/220	1100/320	1510/150	1510/220	1510/320	800\150	800\220	800\320

Table of lubricants suitable for food use
(approved according to USDA-H1 and NSF-H1 specifications)

食品专用润滑油表
（经由 USDA-H1 和 NSF-H1 标准认可）

Manufacturer 生产商	Hydraulic oils 液压油			Gear oils 齿轮油		
	ISO VG 32	ISO VG 46	ISO VG 68	ISO VG 150	ISO VG 220	ISO VG 320
AGIP	Rocol Foodlube Hi Power 32	-	-	Rocol Foodlube Hi-Torque 150	-	Rocol Foodlube Hi-Torque 320
ARAL	Eural Hyd 32	Eural Hyd 46	Eural Hyd 68	Eural Gear 150	Eural Gear 220	-
BEL-RAY	No-Tox HD Hyd Oil 32	No-Tox HD Hyd Oil 46	No-Tox HD Hyd Oil 68	No-Tox Syn Gear Oil 150	No-Tox Syn Gear Oil 220	No-Tox Syn Gear Oil 320
BP	Enerpar M 32	Enerpar M 46	Enerpar M 68	-	-	-
CHEVRON	Lubricating Oil FM 32	Lubricating Oil FM 46	Lubricating Oil FM 68	-	Lubricating Oil FM 220	-
ESSO	Nuto FG 32	Nuto FG 46	Nuto FG 68	-	Gear Oil FM 220	-
KEYSTONE	Nevastane SL 32	Nevastane SL 46	Nevastane SL 68	Nevastane EP 150	Nevastane EP 220	Nevastane EP 320
KLÜBER	Summit Hysyn FG 32	Summit Hysyn FG 46	Summit Hysyn FG 68	Klüberoil 4 UH1 N 150	Klüberoil 4 UH1 N 220	Klüberoil 4 UH1 N 320
MOBIL	DTE FM 32	DTE FM 46	DTE FM 68	DTE FM 150	DTE FM 220	DTE FM 320
NILS	Mizar 32	Mizar 46	Mizar 68	Ripress Synt Food 150	Ripress Synt Food 220	Ripress Synt Food 320
OPTIMOL	Optileb HY 32	Optileb HY 46	Optileb HY 68	Optileb GT 150	Optileb GT 220	Optileb GT 320
PAKELO	Non-Tox Oil Hydraulic ISO 32	Non-Tox Oil Hydraulic ISO 46	Non-Tox Oil Hydraulic ISO 68	Non-Tox Oil Gear EP ISO 150	Non-Tox Oil Gear EP ISO 150	Non-Tox Oil Gear EP ISO 150
ROYAL PURPLE	Poly-Guard FDA 32	Poly-Guard FDA 46	Poly-Guard FDA 68	Poly-Guard FDA 150	Poly-Guard FDA 220	Poly-Guard FDA 320
SHELL	Cassida Fluid HF 32	Cassida Fluid HF 46	Cassida Fluid HF 68	Cassida Fluid GL 150	Cassida Fluid GL 220	Cassida Fluid GL 320
TEXACO	Cygnus Hydraulic Oil 32	Cygnus Hydraulic Oil 32	Cygnus Hydraulic Oil 32	Cygnus Gear PAO 150	Cygnus Gear PAO 220	-
TRIBOL	Food Proof 1840/32	Food Proof 1840/ 46	Food Proof 1840/68	-	Food Proof 1810/220	Food Proof 1810/320

OIL

INDICATIONS FOR OIL CONTROL DIAGRAMS WITHOUT AUXILIARY COOLING SYSTEM

无辅助冷却系统的机油控制图示

Horizontal mounting
Position of levels

水平安装
油液面位置

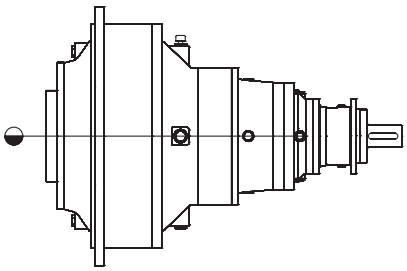


Fig. / 图 7

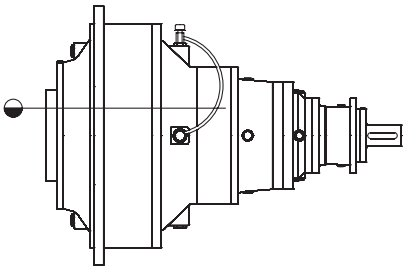


Fig. / 图 8

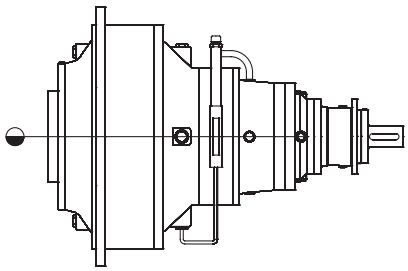


Fig. / 图 9

With horizontal mounting of the gear unit, the normal level for guaranteeing correct lubrication is located at the centre line. Fig. (7). For applications with very low output rotation speed ($n_2 \leq 5$ rpm) it is advisable to fix the level at a value higher than 50-100 mm. Fig. (8).

The correct level can be easily checked using a transparent tube positioned as shown in the figure.
If the output speed is extremely low ($n_2 \leq 1$ rpm), or if long gear unit downtimes are foreseen, it is advisable to fill the entire box. In this case a special auxiliary tank must be provided (see the next chapter).

To fit an instrument for visually checking the level (or by means of a special electric signal), assembly must be done according to the drawing in Fig.(9). Locate the breather plug over the instrument by mean of a long tube. Connect the upper (empty) part of the gearbox just under the breather by mean of a bleeding tube to prevent oil leakage.

Expansion tank
Several rules must be followed with vertical mounting, and in any case whenever the gear unit has to be completely filled.

During filling, an air bubble can form in the upper part, at the output shaft revolving seal, and which must be eliminated in order to avoid insufficient lubrication of the seal. Also, since the volume of oil increases with the temperature, an auxiliary tank must be provided to allow the oil to expand without creating dangerous pressures inside the gear unit.

对于水平安装的齿轮装置，确保正确润滑的正常液面水平位于中线位置，如图 (7)。对于特低转速输出的应用 ($n_2 \leq 5$ rpm)，推荐的液面水平值应高于 50-100 mm，如图 (8)。

将一根透明管安置在如图所示位置，可以很方便地检查液面水平是否正确。
如果输出速度极低 ($n_2 \leq 1$ rpm)，或者，如果准备长期停机，推荐您注满整个机箱。对于这种情况，必须配备一个专用辅助罐（请参阅下一章）。

若要安装可视液面检查仪（或依靠专用电子信号），必须按照图 (9) 所示装配。通过长管在仪器上安置通气塞。通过引流管连接齿轮箱的上部（空的），紧挨通气阀下方，以防机油泄漏。

膨胀箱
垂直安装必须遵循几条原则，并且在任何情况下都必须将齿轮装置注满机油。

在充注时，可能在齿轮箱上部输出轴的旋转密封圈处形成气泡。为了避免密封圈润滑不足，必须消除气泡。同时，因为随着温度上升机油体积增加，所以必须配备一个辅助箱，以允许机油膨胀，避免在齿轮装置内产生危险的内部压力。

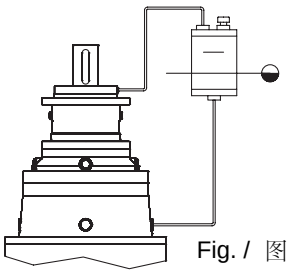


Fig. / 图 10

For dimensioning, the oil expansion volume at operating temperature must be determined:

关于尺寸计算，必须按下列公式计算工作温度下的机油膨胀体积：

$$V_e = V_t \times \Delta T / 1000$$

V_t = total volume of oil
ΔT = difference between operating temperature and ambient temperature

V_t = 机油总体积
DT = 工作温度与环境温度之差

The capacity of the expansion tank is:

膨胀箱的容积为：

$$V_s = 2 \times V_e$$

To remove any residual air, the holes in the top part of the gear unit and the upper part of the expansion tank must be connected; the latter must be located at a height guaranteeing complete filling of the gear unit up to the minimum level. It is advisable to make the bleeding tube or the expansion tank with transparent material, to be able to easily check the exact position of the lubricant level.

若要排除残留的空气，齿轮装置顶部的通气孔与膨胀箱的上部必须连通，后者必须位于高位，加注至膨胀箱的最低液面，以确保齿轮装置完全注满。推荐您使用透明材料的引流管和膨胀箱，以便检查润滑剂液面的准确位置。

Vertical mounting in-line and right-angle versions

垂直安装的直线和直角式齿轮装置

The gear units must be completely full, then the expansion tank must be fitted. As already stated, it is very important to connect the top breather to the expansion tank in order to allow the oil to rise up to the rotating seal ring of the gear unit upper shaft.
To fit an instrument for visual checking (or by means of a special electric signal), the instrument must be placed on the side of the tank.

齿轮装置必须注满机油，所以必须配备膨胀箱。如上所述，为了允许机油上升至齿轮装置上方轴的旋转密封圈处，连接顶部通气阀与膨胀箱至关重要。
若要配备可视检查仪器（或依靠专用电子信号），那么该仪器必须安装在膨胀箱的侧面。

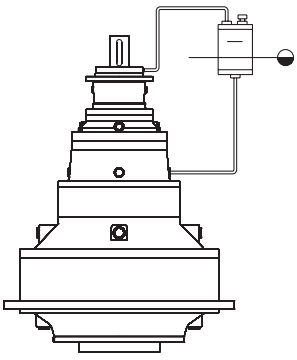


Fig. / 图 11

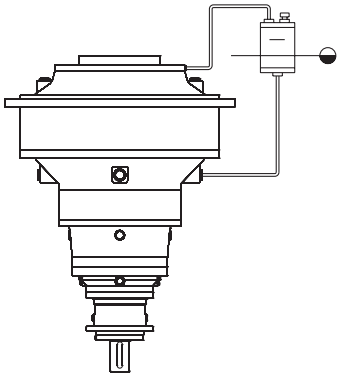


Fig. / 图 12

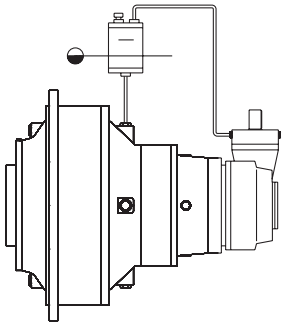


Fig. / 图 13

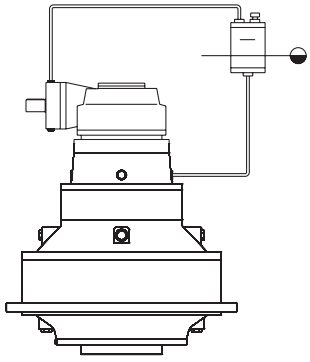


Fig. / 图 14

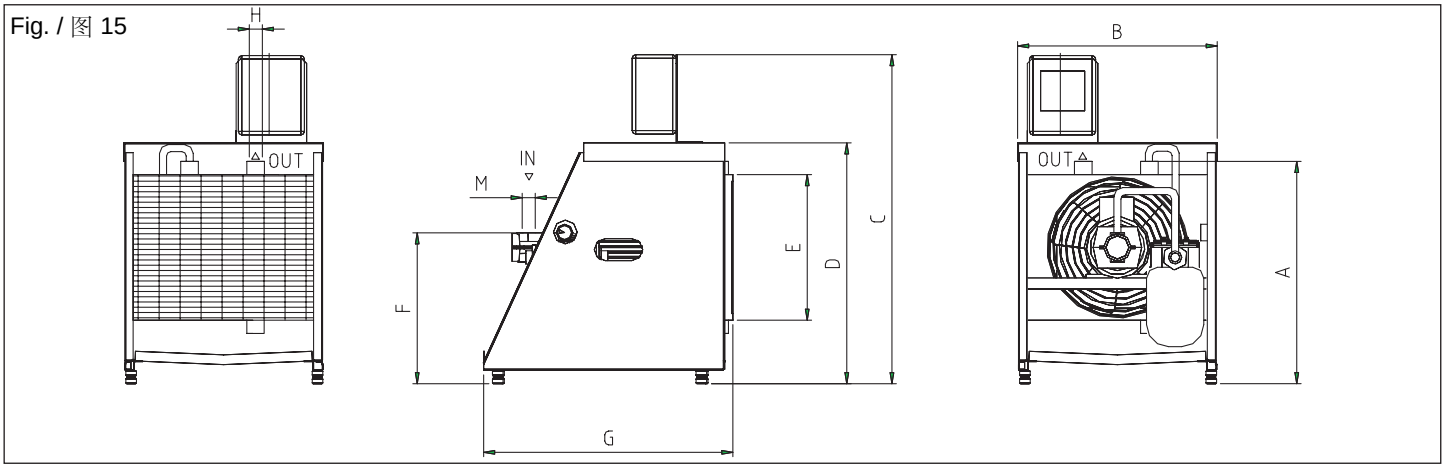
AUXILIARY COOLING AND FILTERING SYSTEMS

If the power transmitted is higher than the thermal power that can be dissipated by the gear unit, an auxiliary cooling system able to dissipate the excess thermal power and also maintain a good level of cleaning of the lubricating oil through constant filtering, must be used.
To carry out this function, YIY Riduttori proposes three cooling units able to dissipate 5, 10, 20 kW respectively.

辅助冷却和滤清系统

如果发出的功率高于齿轮装置耗散的热功率，那么必须使用辅助的冷却系统。该系统能够耗散过量的热功率，并通过连续过滤来维持润滑油良好的清洁水平。
若要实现此功能，YIY Riduttori推出三种冷却装置，分别能够耗散 5、10、20 kW 的热功。

Fig. / 图 15



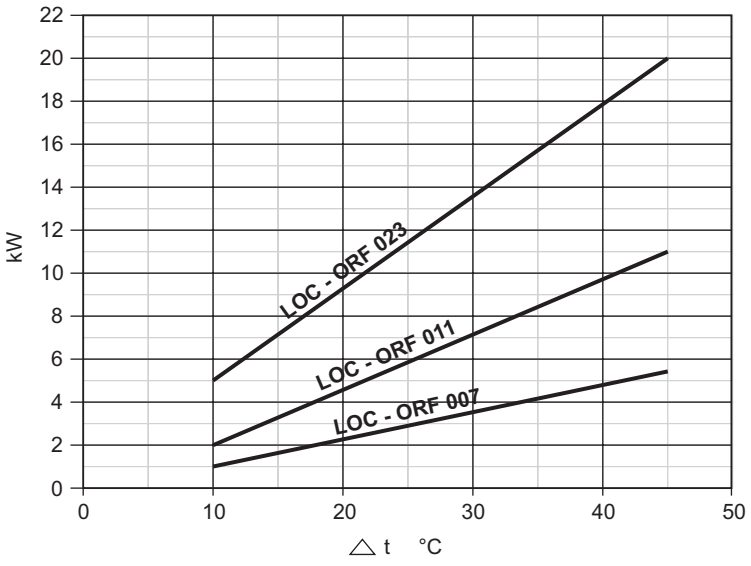
	A	B	C	D	E	F	G	H	M
LOC-ORF 007	480	450	750	550	260	330	570	1/2”	1”
LOC-ORF 011	520	450	790	590	300	330	570	3/4”	1”
LOC-ORF 023	780	695	1040	845	440	330	700	1”	1” 1/4

Technical data

The values indicated in the diagram refer to hydraulic oil with a kinematic viscosity of 220 cSt at 40 °C and an ambient temperature during testing of 20 °C.

技术数据

图中所示的数据取自运动粘度为40 度, 220 cSt的液压油，测试时的环境温度为20 度。



Δ t= (Toil IN - T air IN)

Δ t = (Toil IN - T air IN)

	Unit / 单位	LOC-ORF 007	LOC-ORF 011	LOC-ORF 023
Flow / 流量	Lt/1'	6	12	20
Fan diameter / 风扇直径	mm	325	400	538*
Dissipated power / 耗散功率 (Δ T air/oil = 40 °C) (Δ T 空气 - 机油 = 40 °C)	kW	4.8	9.9	18.6
Load loss / 负载损耗	Kpa	0.9	1.8	4
Electric motor / 电动机	Gr- kW – poli -IP	71 -0.37-4- 55F	71-0.75-4-55F	80-1.1-4-55F
Max pressure / 最大压强	bar	5	5	5
Filter capacity / 过滤能力	micron	25	25	25
Noise level / 噪音水平	dB (A) 1m	70	73	82*
Weight / 重量	Kg	35	40	60*

The units are formed of an air-oil cooler, a filter, an electric motor, a pump with three screws with safety valve and a coaxial fan integral with the pump, with impellers inclined according to the frequency of motor operation to limit noise.
The system is equipped with a thermostat that allows pump start only when the oil temperature is between 20 °C and 30 °C to avoid pumping cold, and excessively viscous oil, with subsequent pressure rise in the circuit.

It is also equipped with the necessary electrical panel; for further information contact the YIY Riduttori Technical Commercial Service.

If a different auxiliary system is to be fitted, do not use systems with an external tank.

If an auxiliary tank is required (e.g. for cooling several gear units with a single system) it is advisable to contact the YIY Riduttori Technical Commercial Service.

In designing an oil circulating circuit it is advisable for suction to be in the lowest point, so that this branch of the circuit can also be used to drain the gear unit. In any case, the oil suction and delivery points must be far enough apart to ensure fresh oil crossing the gear unit.

The diameter of the oil passage is very important, above all in suction. In fact, with too narrow holes, the pump tends to cavitate. Not being able to change the pump delivery, which is a function of the power to be dissipated, the capacity of the holes must be verified.
When sucking from input shafts or the flanges of the fast reducers, the use of one hole may be insufficient to dissipate all the flow therefore 2 or 3 holes must be connected by means of a manifold connected to the suction pipe.
Delivery is usually less problematic since, in the event of insufficient natural capacity, a small pressure is generated which guarantees the flow.
For correct dimensioning of the circuit, it is advisable to follow these rules.

Suction:
provide for suction from several holes when, using just one hole, the oil velocity V is higher than **1.30** m/s;
Delivery:
deliver in several holes when, using just one hole, the oil velocity **V** is higher than **2.10** m/s.

这些装置由一个空气 - 机油冷却器、一个过滤器、一个电动机、一个带有三个螺旋桨和安全阀的油泵，还有一个与油泵联体的同轴风扇构成。该风扇会根据电动机工作频率调整叶轮的倾斜角，来限制噪音。
该系统装备了自动调温器，其油泵仅在油温为 20 度至 30 度之间时启动，以免泵入低温和过量的润滑油，导致循环压力升高。

此外，该装置还配备了必要的电子面板。有关更详细的信息，请与 YIY Riduttori技术商务服务部联系。

若要安装其他辅助系统，请勿使用带有外部箱的系统。

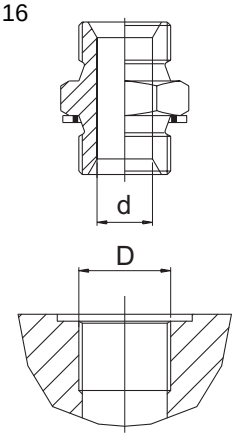
如果必需一个辅助箱 （例如用单个系统冷却多个齿轮装置），建议您与 YIY Riduttori技术商务服务部联系。

在设计循环油路时，建议将油泵安置在最低点，使得这一循环分枝也可用于齿轮装置的机油消耗。无论如何，机油泵和出油点必须分开足够远，以保证流经齿轮装置的机油保持新鲜。

除了油泵，最重要的是油路的直径。实际上，如果油路狭窄，油泵往往形成半真空状态。油泵出口具有耗散功率的功能，因此不能改变油泵出口，必须检验出口孔的容量。
当从输入轴或快速减速器的法兰抽吸时，使用一个孔可能不足以耗散液流，因此，必须有 2 或 3 个孔洞以多支管的方式与油泵导管相连。
通常出口没有问题，在固有容量不能胜任的情况，产生的小压强就可以驱动液流。
若要正确计算循环的尺寸，建议您遵循下列原则。

油泵：
当使用一个孔时，机油速度 V 高于 **1.30** m/s，请为油泵提供多个孔；
出口：
当使用一个孔时，机油速度 **V** 高于 **2.10** m/s，请提供多个出口孔。

Fig. / 图 16



Oil velocity table / 机油速度表 [m/s]				
Hole diameter / 孔直径		Pump flow / 泵流量 [l/min]		
D (nom.) D （额定）	d [mm]	6	12	20
G 1/4”	7	**2.59**	**5.19**	**8.60**
G 3/8”	10	**1.27**	**2.54**	**4.24**
G 1/2”	12	**0.90**	**1.76**	**2.94**
G 3/4”	16	**0.50**	**1.00**	**1.65**
G 1”	22	**0.26**	**0.52**	**0.87**
G 1 1/4”	30	**0.14**	**0.28**	**0.47**

The velocity can be obtained from the table, or calculated with the formula:

从表中可以获得速度值，也可按此公式计算:

$$V = (Q \times 21.2) / d^2$$

where **V** = velocity of oil in m/s
Q = flow in l/min
d = internal diameter of union in mm
In calculating, a kinematic oil viscosity of 60 cSt was considered.

其中 **V** = 机油速度，单位：m/s
Q = 流量，单位：l/min
d = 合并内径，单位：mm
在计算中，把机油运动粘度当作 60 cSt。

INDICATIONS FOR OIL CONTROL DIAGRAMS WITH AUXILIARY COOLING SYSTEM

有辅助冷却系统的机油控制图示

Horizontal gear unit
That described in the previous pages holds good for defining the levels.

水平齿轮装置
前几页有关确定液面的内容仍然有效。

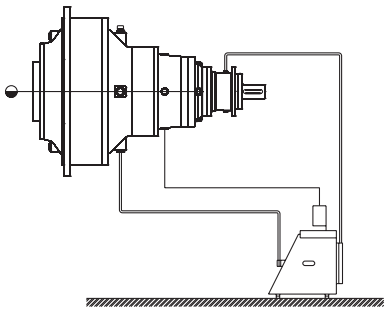


Fig. / 图 17

In-line and right-angle vertical gear unit
The same considerations hold good for gear units with bevel gear set.

直线和直角式的垂直齿轮装置
对于斜角传动装置，原先的注意事项仍然有效。

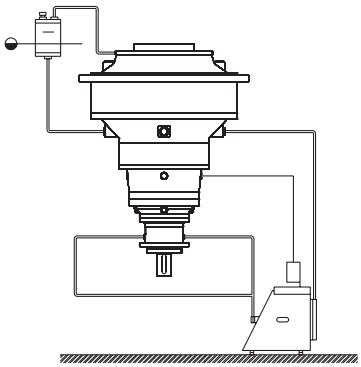


Fig. / 图 18

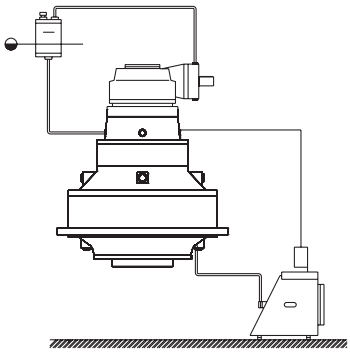


Fig. / 图 19

Important
The auxiliary oil filtering and cooling systems described above represent the minimum condition necessary for obtaining control of the gear unit lubrication. The end-user can always enhance the system with the addition of auxiliary safety controls on the flow, temperature and level. The system can also be equipped with cocks for facilitating oil change operations with the auxiliary of the service pump and suction auxiliary filter for protecting the pump from possible debris accidentally coming from inside the gear unit.

OIL CHANGE

In the absence of a filtering and cooling circuit, the first oil change must be made after 500-600 hours of operation. Subsequently, and in any case, every 2,500 hours or at least once a year.
With particularly heavy or intermittent applications, different times can be defined, and which must be duly agreed with the YIY technical commercial service or directly with the oil producer.
It is advisable to carry out the oil change with the gear unit hot, (approx. 40 °C) to prevent sludge from forming and to facilitate complete draining.
For the correct procedure comply with the rules given in the installation and maintenance manual supplied with each unit.
It is advisable to periodically check the oil level. If more than 10% the total volume has to be added, check for leaks.

重要
上述机油滤清和冷却辅助系统仅提供控制齿轮装置润滑剂所必须的最低要求。最终用户始终可以利用附加辅助，以增强系统对流量、温度和液面的安全控制。该系统还可以安装阀门，使更换机油的操作更加方便；也可以安装辅助工作泵和油泵辅助过滤器，来保护油泵，防止偶然出自齿轮装置内部的可能碎片。

机油更换

在没有滤清和冷却循环的情况下，在工作了 500-600 小时以后，必须进行第一次机油更换。此后，不论如何，必须每 2,500 小时或至少一年更换一次机油。
对于特重负荷或间歇的应用，可以规定不同的时间间隔，但是必须适时地征求 YIY 技术商务服务部的同意，或直接与机油生产商联系。
建议您趁热（大约 40 度）更换齿轮装置的机油，以防形成软泥，而且有利于完全排放。
为了实现正确的工艺规程，请按照每个部件所附带的《安装和维护手册》执行操作。
建议您定期检查机油液面。如果需加入量超过总量 10%，请检查是否发生泄露。

OIL QUANTITY 润滑油量 油量

		B3	V5 V6	B3A B3C	B3B	B3D	V5B V6B	Peso *Weight*
SL 3001	FE							
	FS							
	MP							
	MP1							
SL 3002	FE							
	FS							
	MP							
	MP1							
SL 3003	FE							
	FS							
	MP							
	MP1							
SL 3004	FE							
	FS							
	MP							
	MP1							
SC 3002	FE							
	FS							
	MP							
	MP1							
SC 3003	FE							
	FS							
	MP							
	MP1							
SC 3004	FE							
	FS							
	MP							
	MP1							
SL 4001	FE							
	FS							
	MP							
	MP1							
SL 4002	FE							
	FS							
	MP							
	MP1							
SL 4003	FE							
	FS							
	MP							
	MP1							
SL 4004	FE							
	FS							
	MP							
	MP1							
SC 4002	FE							
	FS							
	MP							
	MP1							
SC 4003	FE							
	FS							
	MP							
	MP1							
SC 4004	FE							
	FS							
	MP							
	MP1							

		B3	V5 V6	B3A B3C	B3B	B3D	V5B V6B	Peso *Weight*
SL 6001	FE							
	FS							
	MP							
	MP1							
SL 6002	FE							
	FS							
	MP							
	MP1							
SL 6003	FE							
	FS							
	MP							
	MP1							
SL 6004	FE							
	FS							
	MP							
	MP1							
SC 6003	FE							
	FS							
	MP							
	MP1							
SC 6004	FE							
	FS							
	MP							
	MP1							
SL 8501	FE							
	FS							
	MP							
	MP1							
SL 8502	FE							
	FS							
	MP							
	MP1							
SL 8503	FE							
	FS							
	MP							
	MP1							
SL 8504	FE							
	FS							
	MP							
	MP1							
SC 8503	FE							
	FS							
	MP							
	MP1							
SC 8504	FE							
	FS							
	MP							
	MP1							

OIL

OIL QUANTITY 润滑油量 油量

		B3	V5 V6	B3A B3C	B3B	B3D	V5B V6B	Peso *Weight*
SL12001	FE							
	FS							
SL12002	FE							
	FS							
SL12003	FE							
	FS							
SL12004	FE							
	FS							
SC12003	FE							
	FS							
SC12004	FE							
	FS							
SL18001	FE							
	FS							
SL18002	FE							
	FS							
SL18003	FE							
	FS							
SL18004	FE							
	FS							
SC18004	FE							
	FS							

		B3	V5 V6	B3A B3C	B3B	B3D	V5B V6B	Peso *Weight*
SL25001	FE							
	FS							
SL25002	FE							
	FS							
SL25003	FE							
	FS							
SL25004	FE							
	FS							
SC25004	FE							
	FS							
SL35001	FE							
	FS							
SL35002	FE							
	FS							
SL35003	FE							
	FS							
SL35004	FE							
	FS							
SC35004	FE							
	FS							

Mounting position 装配位置