

# KFB 系列回转减速机

## KFB series rotation speed reducer



### ◆概述 Introduction

KFB 系列回转装置是轮式或履带式挖掘机、旋挖钻机、履带和汽车起重机、船用克令吊等各种需要驱动转台的设备理想的回转减速部件，在非常恶劣的使用工况下能提供可靠的性能。

产品结构紧凑可直接安装于设备内部，节省空间，安装与保养方便，该产品的内部结构应用了我公司的新技术，外形安装尺寸及主要技术参数与力士乐同类产品基本相同，因而可以替代力士乐进口产品。

该系列减速机不仅能符合力士乐型系列参数和外形安装尺寸，而且可根据具体需要，提供意大利布雷维尼、日本帝人、不二越、KYB 型的替代产品。我们可在客户选型阶段为客户提供相关咨询服务，以期为客户找到最适合的传动解决方案。

根据设计要求，该减速机不仅能与力士乐型定量或变量液压马达联接，还可以与多种其他型号的液压马达相连接。减速机输入端可根据需要安装有弹簧制动、液压释放的多片式停车制动器。制动器的静制动扭矩可与所配液压马达输入扭矩相匹配（一般静制动扭矩大于 1.5 倍马达输入扭矩）。

该类产品已广泛用于轮式或履带挖掘机、履带起重机、旋挖钻机、船用克令吊等设备中，产品不但已在国内三一重工、徐工集团等重点用户中使用，并出口到东南亚，中东、印度、韩国、荷兰、俄罗斯等地区和国家。

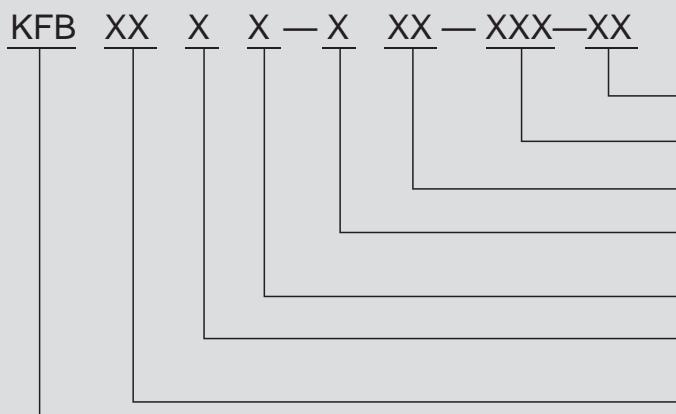
KFB series rotation speed reducer is a ideal rotation speed reducer for all kinds of equipment that need driving rotation floor, such as wheel style or band track style of excavator, rotary drilling rig, band track and vehicles hoist and shipping use cranes. It could guarantee the reliable performance even under the severely hard working conditions.

Due to its compact structure, this product could directly be installed into the equipment, saving the space and offering the easy installing and maintenance. The inner parts of the products adopt our new tech, with the installation size and the main technical parameters almost similar to that of Bosch-Rexroth, therefore, it could be served as the surrogate for the Bosch-Rexroth imports.

KFB series speed reducers not only meet the Bosch-Rexroth series parameters and installation size but also could offer the surrogate similar to Brevini, Tejin, Nachi, KYB, Fairfield or Sauer according to the specific demands and design. We could provide the customers with the consulting service and suitable type selection to find the optimal products resolution for the clients.

As per the design demand, the speed reducers could connect with the Bosch-Rexroth constant and variable hydraulic motors and at the same time could match the other hydraulic motors if necessary. The input end of the reducers could be equipped with spring brake and the multi-plate hydraulic release parking brake according to different needs. The static braking torque of the brake goes with the hydraulic motor's input torque (generally 1.5 times bigger). This type of reducers has been broadly used for wheel style or band track style of excavator, band track hoist, rotary drilling rig and shipping use cranes. The products not only have gone to Sany and XCMG but also have been exported to Southeast Asia, Middle East, India, Korean, the Netherlands and Russia.

### ◆型号说明 Specifications



所配液压阀块型号 Applied valve type number

适配液压马达型号 Type of adaptive hydraulic motor

减速机总传动比 General rotating ratio of the reducer

B 表示带停车制动器，无表示不带停车制动器

B stands for parking brake function and vice versa

减速机传动级数 Rotating progression

减速机使用场合，T 表示用于回转驱动

Speed reducer used situation, T shows it is used for rotation driving

减速机最大输出扭矩 (KN·m)

Maximum output torque of the reducer (KN.m)

邦力高速回转减速机

BONNY high speed rotation reducer

### ◆型号举例 Specification example

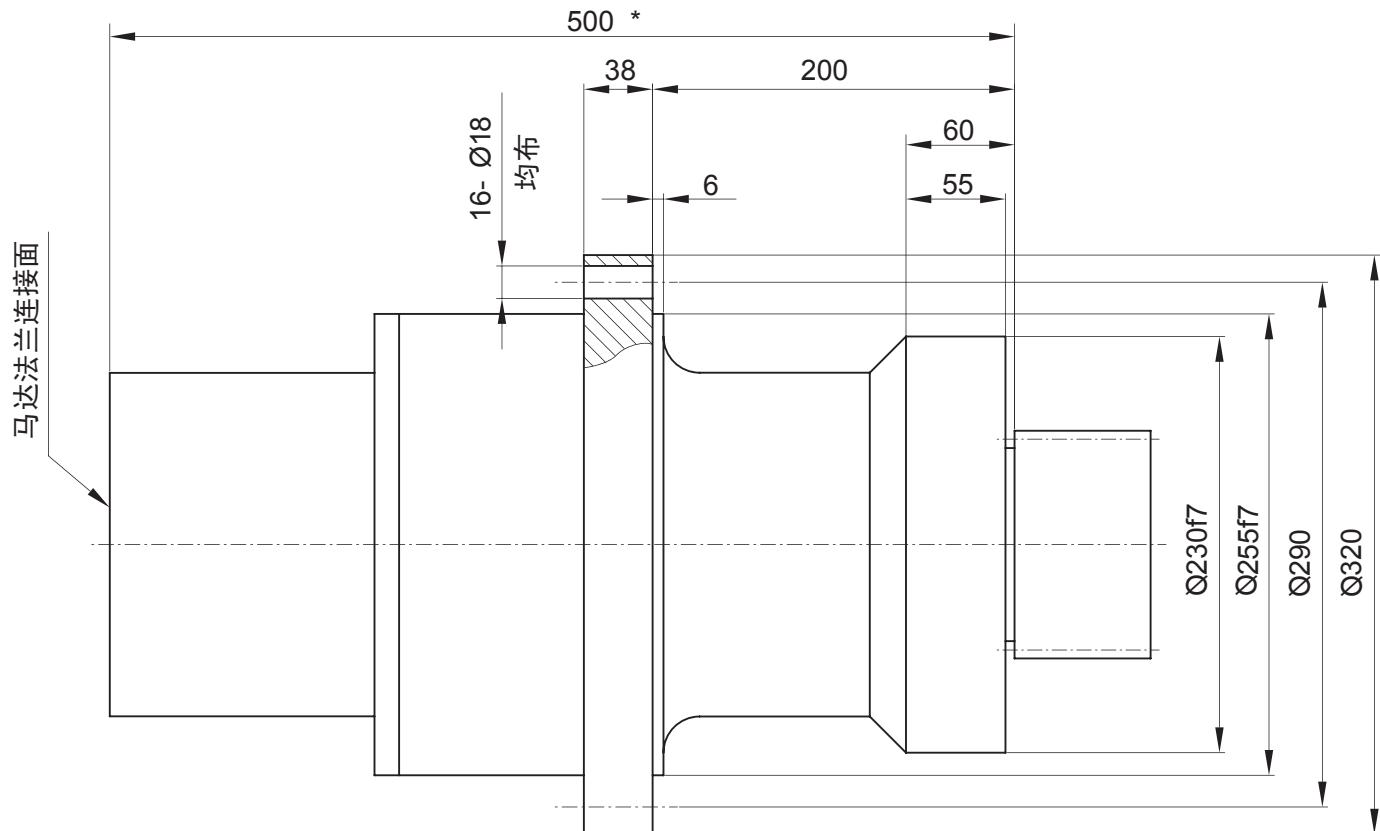
KFB17T2-B48-A2FE56/61WVZL 表示减速机最大输出扭矩为 12.7KN · m，用于回转驱动，采用二级减速，带液压制动器，总传动比为 48，所配液压马达型号为 A2FE56/61WVZL。

KFB 17T2-B48-A2FE56/61 WVZL shows that the maximum output torque of the reducer for move driving is 12.7KN.M. Adoption of the second class speed reducing and parking brake with the general rotating ratio of 48 and the hydraulic motor A2FE56/61 WVZL.

## KFB 17T2/T3 系列回转减速机

## KFB 17T2/T3 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{BR\ max.}$ N·m
12700	27.4 33.1 46.4 78.9 89.2 103.6	A2FE28 A2FE32 A2FE45 A2FE56 A2FE63	500-1000

减速机输入转向与输出转向相同。

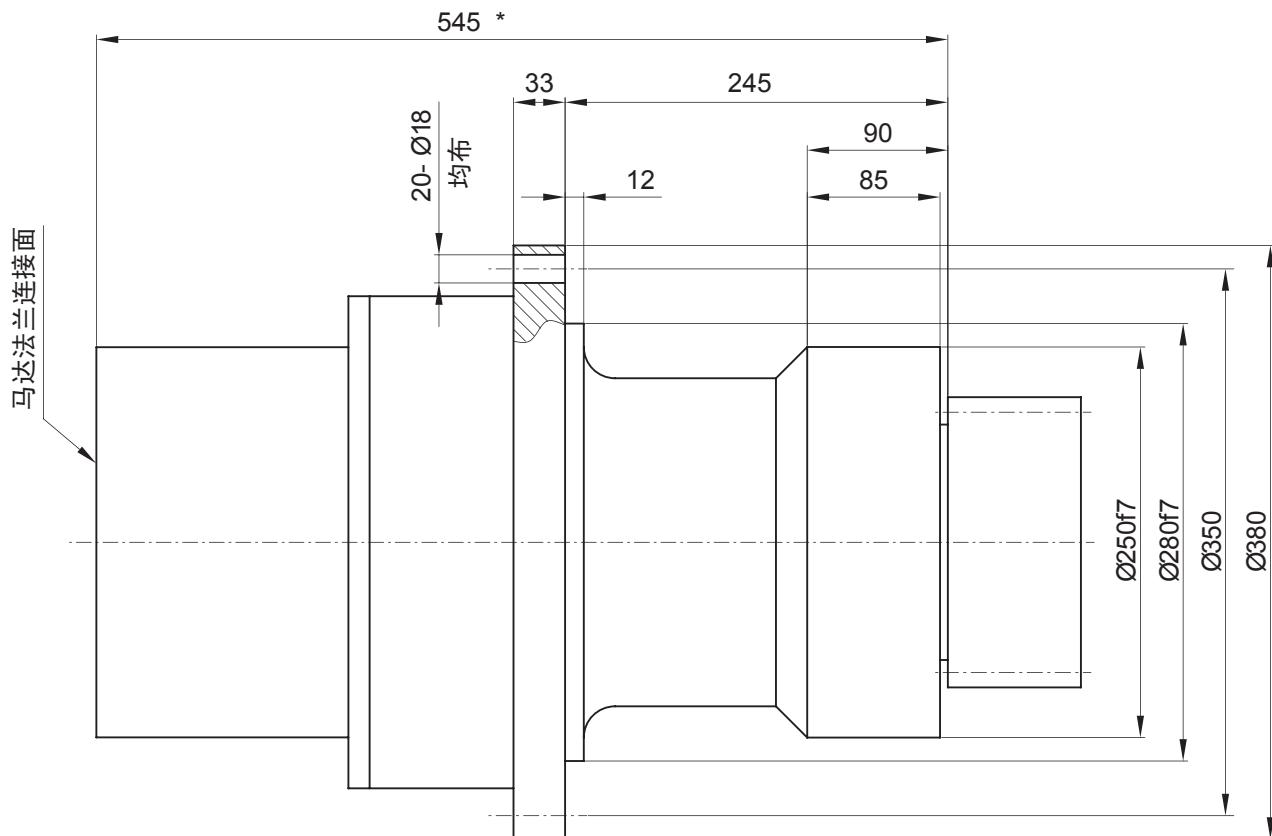
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 26T2 系列回转减速机

## KFB 26T2 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{BR\ max.}$ N·m
16500	27.1 31.4 37.8 43.9 51.5 63	A2FE45 A2FE56 A2FE63 A2FE80 A2FE90	500-1000

减速机输入转向与输出转向相同。

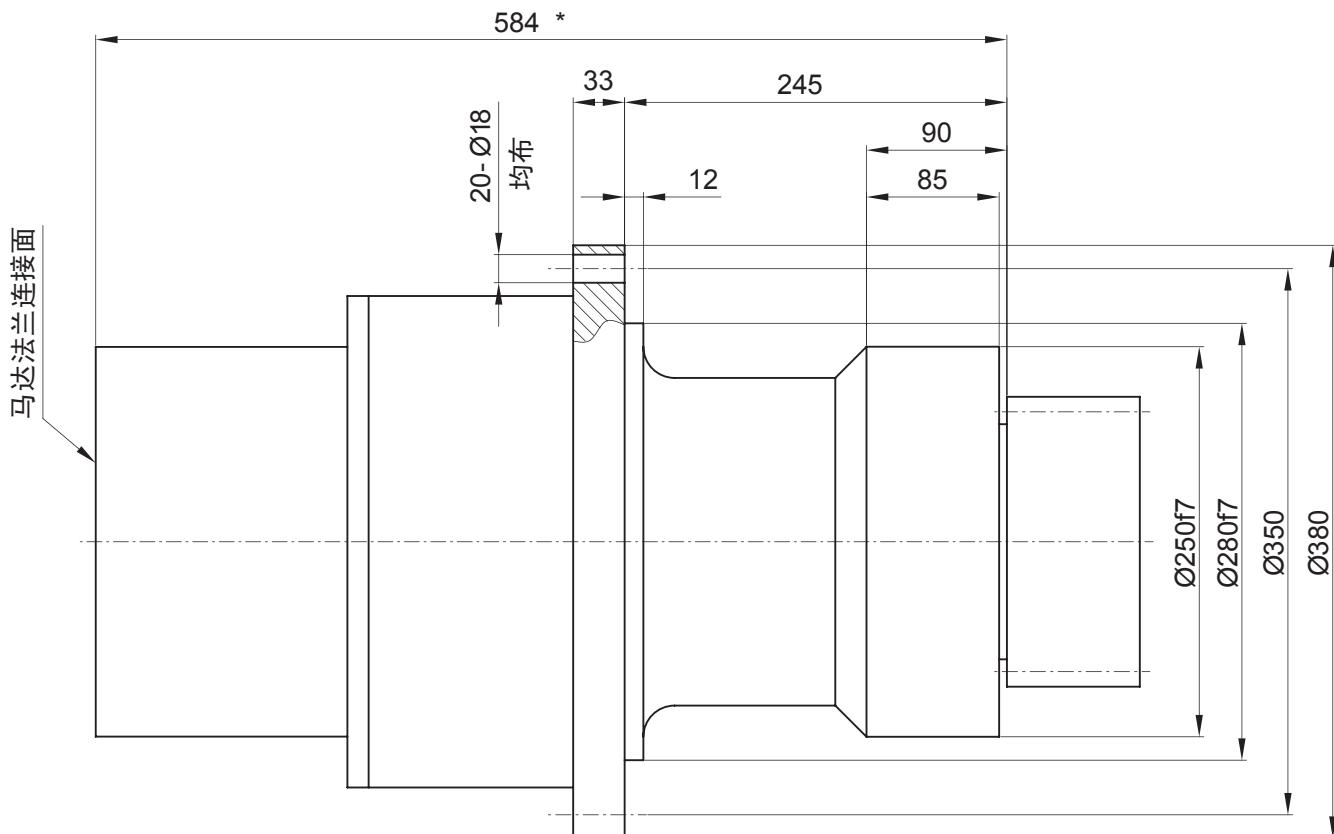
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 36T3 系列回转减速机

## KFB 36T3 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{BR\ max.}$ N·m
28500	67.9 73.5 80.4 89.2 101 117.6	A2FE45 A2FE56 A2FE63 A2FE80 A2FE90	450-800

减速机输入转向与输出转向相同。

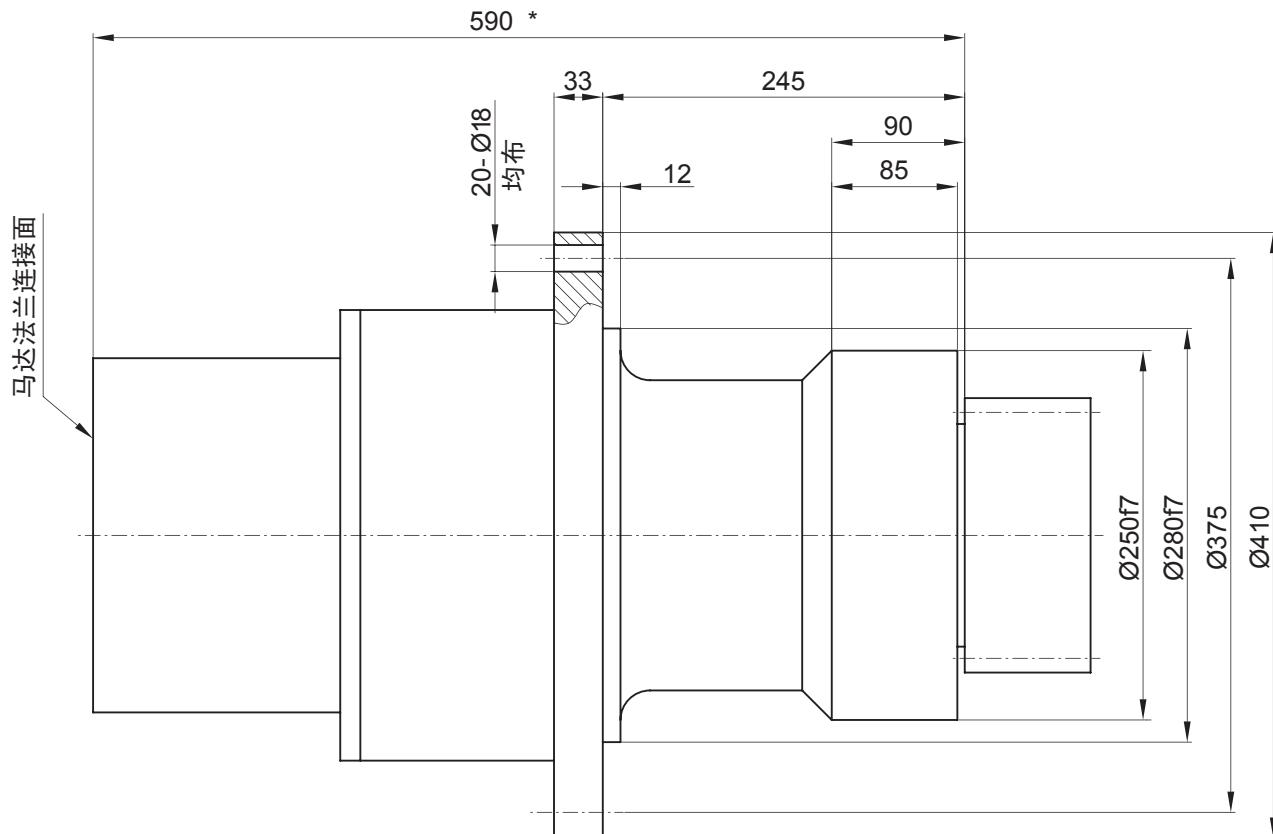
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 40T2 系列回转减速机

## KFB 40T2 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{BR\ max.}$ N·m
29000	36.4 42 49.3 60.1	A2FE45 A2FE56 A2FE63 A2FE80 A2FE90 A2FE107 A2FE125	800-1200

减速机输入转向与输出转向相同。

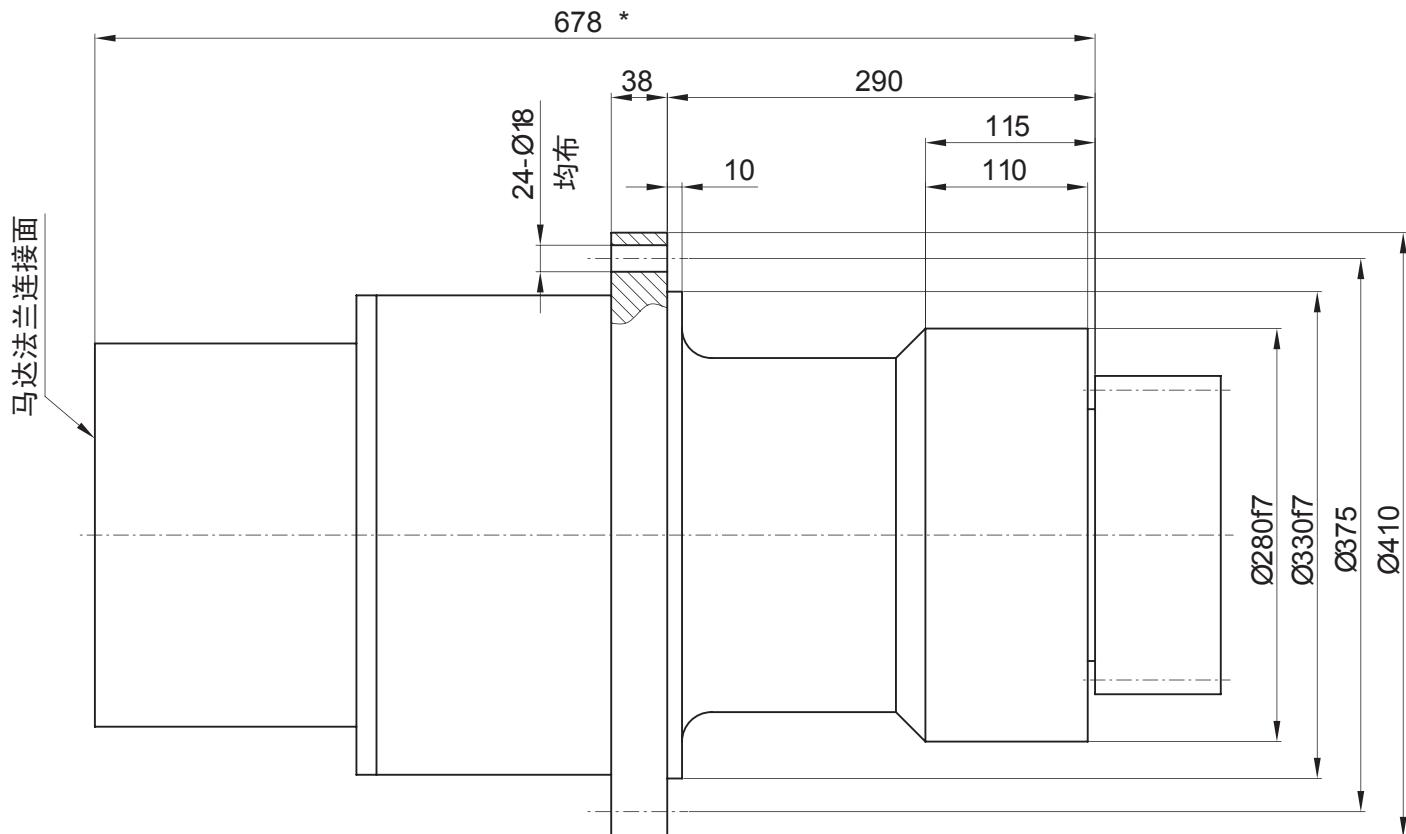
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 50T2 系列回转减速机

## KFB 50T2 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{BR\ max.}$ N·m
38000	27 32.3 37.8 46.1	A2FE80 A2FE90 A2FE107 A2FE125	1000-1500

减速机输入转向与输出转向相同。

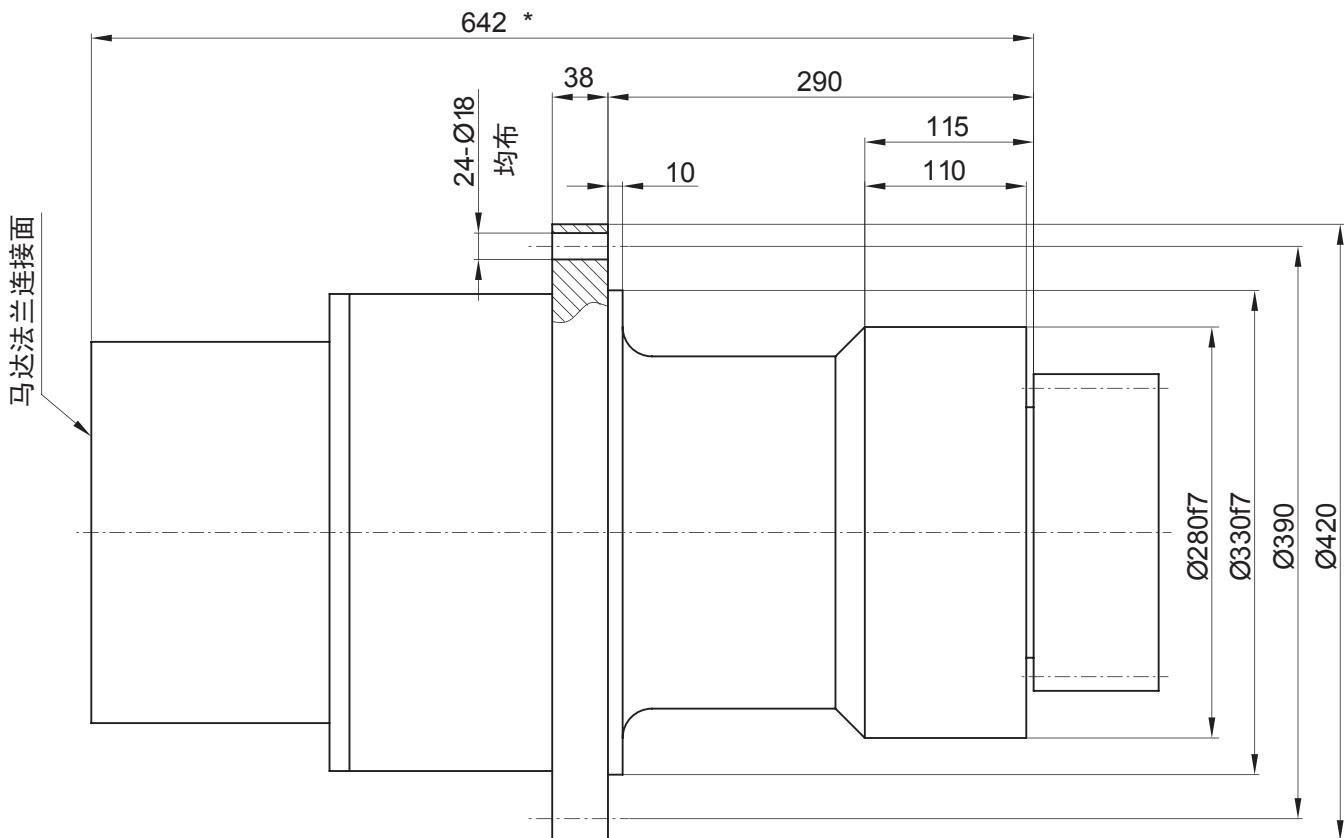
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 50T3 系列回转减速机

## KFB 50T3 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{BR\ max.}$ N·m
38000	85.2 92.1 100.7 111.9 126.7 147.4	A2FE45 A2FE56 A2FE63 A2FE80 A2FE90 A2FE107 A2FE125	600-1100

减速机输入转向与输出转向相同。

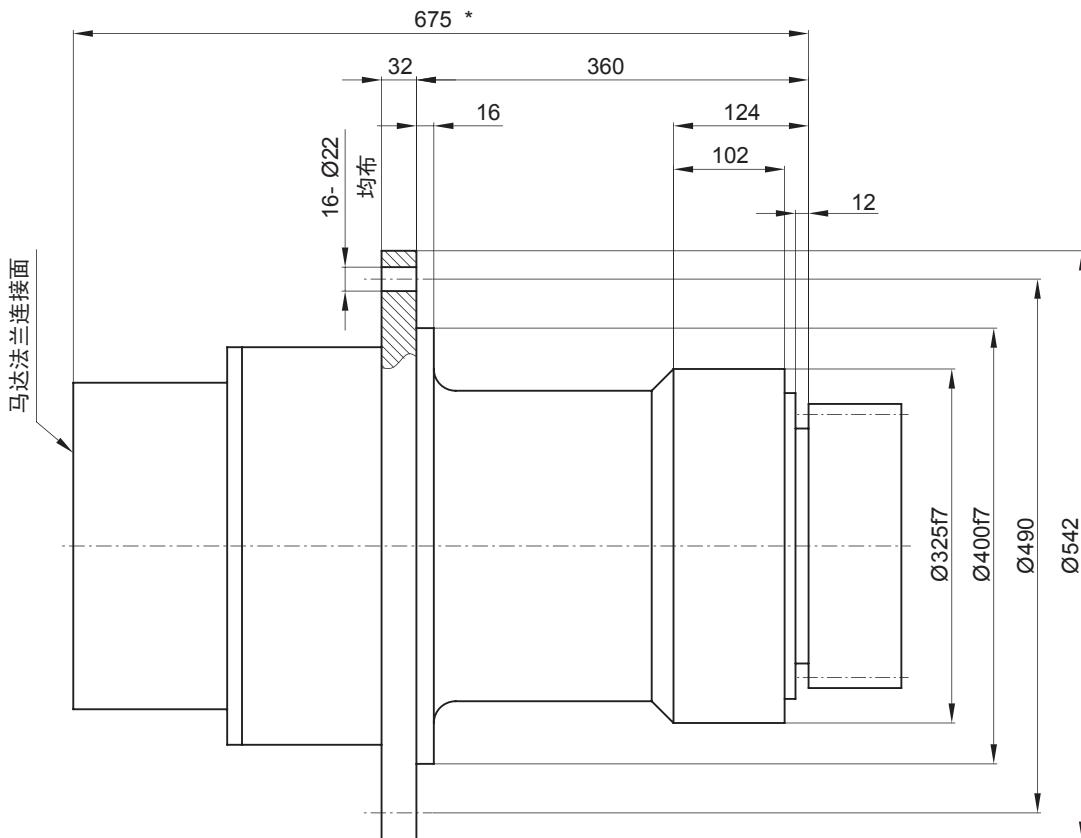
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 60T2 系列回转减速机

## KFB 60T2 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{BR\ max.}$ N·m
48500	34 40.4	A2FE80 A2FE90 A2FE107 A2FE125 A2FE160 A2FE180	1200-2200

减速机输入转向与输出转向相同。

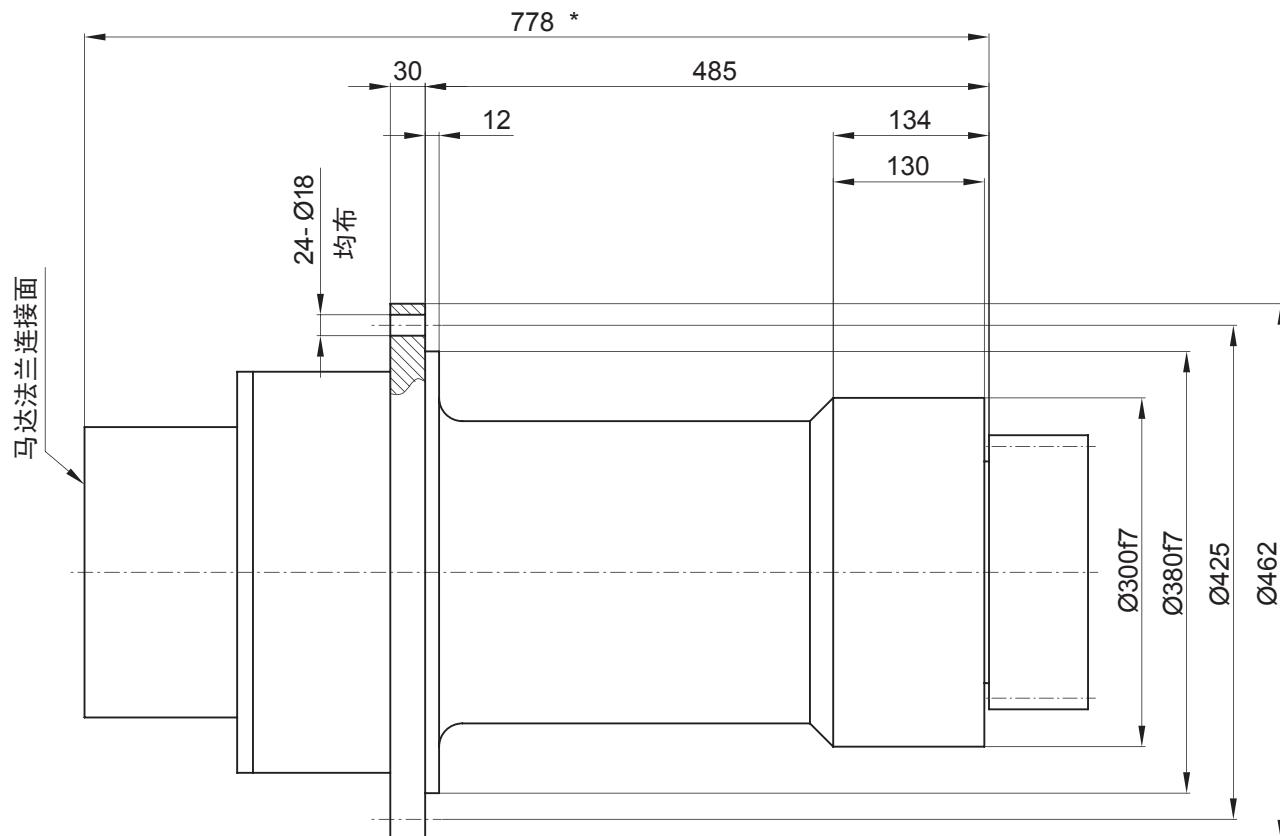
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 60T3 系列回转减速机

## KFB 60T3 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{BR\ max.}$ N·m
48500	87.5 95.8 106.5 120.5 140.9 170.9	A2FE45 A2FE56 A2FE63 A2FE80 A2FE90	800-1200

减速机输入转向与输出转向相同。

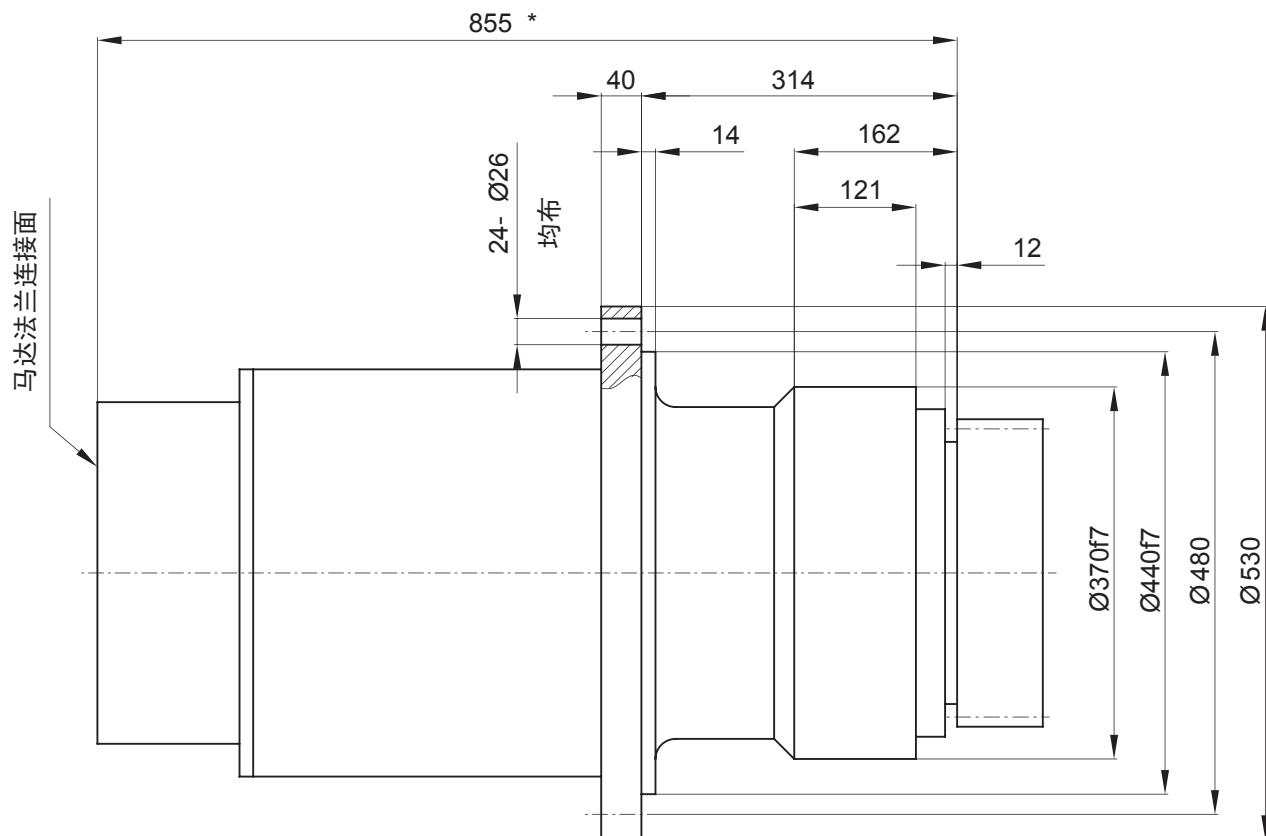
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 80T3 系列回转减速机

## KFB 80T3 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque $T_{max}$ N·m	传动比 Rotating ratio $i$	液压马达 Hydraulic motor	静制动扭矩 Static brake torque $T_{Br max.}$ N·m
68300	62.3 80.2 99.9 111.8 127.9 150.9 186.4	A2FE80 A2FE90 A2FE107 A2FE125	800-1600

减速机输入转向与输出转向相同。

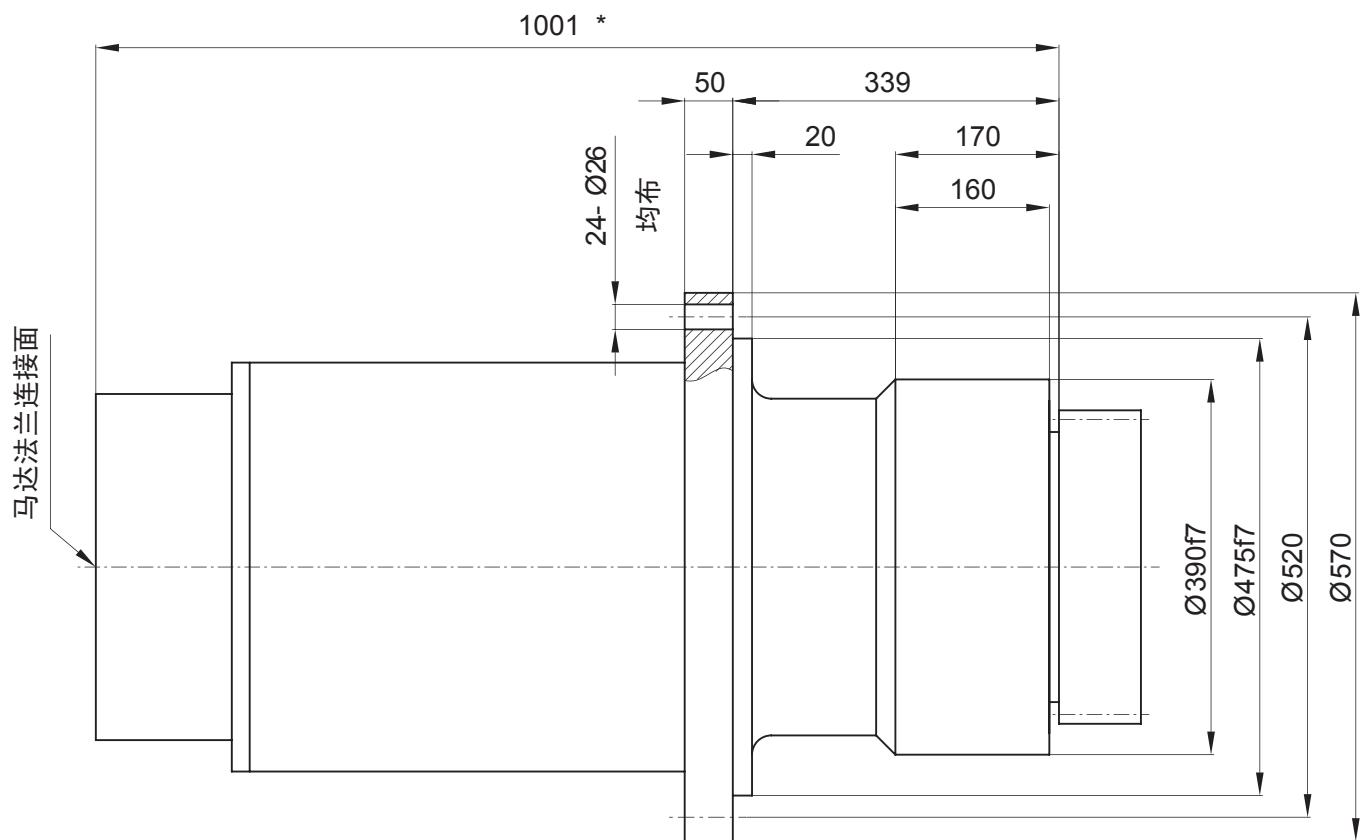
输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.

## KFB 110T3 系列回转减速机

## KFB 110T3 series rotation speed reducer

### ◆ 外形尺寸 Dimension



### ◆ 技术参数 Technical parameters

输出扭矩 Output torque T <sub>max</sub> N·m	传动比 Rotating ratio i	液压马达 Hydraulic motor	静制动扭矩 Static brake torque T <sub>BR max.</sub> N·m
93300	80.5 88.6 96.8 129.6 148.2 174.9	A2FE107 A2FE125 A2FE160 A2FE180 A2FE200 A2FE250	900-2000

减速机输入转向与输出转向相同。

输出转速允用值（样本中未规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员

Input rotating direction is of reverse to that of output. The allowed value for the output rotating (not stated in the example) may varies according to the specific working condition and details could be consulted with our technicians.



## ◆使用条件 Service conditions

减速机适用于 -20 至 +40 的环境温度范围。对于使用在诸如盐水等腐蚀性介质、过压、剧烈冲击及环境温度超过规定值等会妨碍产品功能的情况下，为确保减速机的安全应用，用户订货时必须说明所有这些条件。以便于采取必要的特殊设计和措施来保证产品应用的可靠性。

This speed reducer applies to the environment of -20 to + 40

To make sure the reducer is used safely, the clients must specify the conditions that may affect

the function of the products, such as the caustic medium like saline water, over pressure, fierce impact and other conditions as well as the temperature that cross the specified values before the order is made so as to apply the specific design and protection measures.

## ◆最大输出 Max output

本样本中技术参数栏中所指的最大输出扭矩应参考 FEM 第 3 版第 1 章 (详见附表 1、2)(FEM : 欧盟标准) , 当输出最大转速为每分钟 25 转 , 集合载荷级别 L2 和运行时间级别 T5 对应于驱动机构类型 M5 时 , 此时系数 K 为 1。减速机应根据驱动机构的不同类型、不同的载荷级别、不同的运行时间级别和不同的驱动机构类型 , 可按表 1 和表 2 查出修正系数 K 值 , 对最大允许的输出扭矩必须除以系数 K 进行修正换算 (见表格)。该换算可计算出减速机对应于各种工况的最大允许输出扭矩。所选择分级可咨询本公司技术人员。

The maximum output torque listed in this sample table shall be referenced to FEM version 3 and chapter 1 (details in schedule 1 and 2) (FEM: EU standards). When the max output rotation speed reach to 25 r/min and assemblage load level L2 as well as the operation time level T5 correspond to the driving mechanism M5, this coefficient is 1. The K coefficient of the reducer could be modified with the reference to Table 1

and Table 2 according to the different types of driving mechanism, load level and

operation time while the allowed max output torque shall divide the K coefficient to modify and convert (see in the table). This method could calculate the reducer's allowed max output torque under the different working conditions. The classification problems could be consulted with our technical staff.

## 驱动机构类型和运行时间级别, 按 FEM 1987 年第 3 版, 第一章

(FEM: 欧盟标准)

The type and the operation time level for driving mechanism as per FEM, 1987 version 3 chapter 1

(FEM: EU standarts)

Table 1 表 1

运行时间级别 Operation time level			T2	T3	T4	T5	T6	T7	T8
假定每天的平均工作时间 (小时) Assumed average operating time per day (Hour)			0.25-0.5	0.5-1	1-2	2-4	4-8	8-16	> 16
理论使用寿命 (小时) Nominal life span			400-800	800-1600	1600-3200	3200-6300	6300-12500	12500-25000	25000-50000
载荷级别 Load level			驱动机构类型与系数 K Type of Driving Mechanism & Coefficient K						
L1	轻 Light	偶尔承受最大载荷, 经常承受轻载荷 Generally the light load with occasionally heavy load	M1 0.90	M2 0.90	M3 0.90	M4 0.90	M5 0.95	M6 1.05	M7 1.2
L2	中 Medium	工作时间内轻、中和重载荷大致平均分布 Equispaced with light, medium and heavy load	M2 0.9	M3 0.95	M4 0.95	M5 1	M6 1.15	M7 1.30	M8 1.50
L3	重 Heavy	经常承受接近最大的载荷 Generally close to the max load	M3 1.05	M4 1.05	M5 1.10	M6 1.25	M7 1.40	M8 1.60	M8 1.80
L4	特重 Extra heavy	经常承受最大载荷 Generally the max load	M4 1.25	M5 1.30	M6 1.45	M7 1.65	M8 1.85	M8 2.10	M8 2.40

## ◆ 分级示例 Classification example

参见 FEM 第 3 版第 1 章

See in FEM Version 3 Chapter 1

Table 2 表 2

超重机类型 (名称) Crane type (Name)	工作元件 (1) Working element	驱动机构类型 Type for driving mechanism				
		起升 Heave	回转 Rotation	变幅 Amplitude	小车行走 Car move	超重机行走 Crane move
安装用起重机 Installation use crane		M2-M3	M2-M3	M1-M2	M1-M2	M2-M3
装卸桥 Handling bridge	吊钩 Dr op hanger	M5-M6	M4	-	M4-M5	M5-M6
装卸桥 Handling bridge	抓斗或磁铁 Grab or magnet	M7-M8	M6	-	M6-M7	M7-M8
车间用起重机 Workshop use crane		M6	M4	-	M4	M5
桥式起重机、碎铁起重机、废钢厂吊车 Bridge crane, Iron smash crane, Scrap iron crane	抓斗或磁铁 Grab or magnet	M8	M6	-	M6-M7	M7-M8
卸料桥、集装箱门式起重机 Discharging bridge, Container gantry crane	吊钩或吊具 Drop hanger or toplift	M6-M7	M5-M6	M3-M4	M6-M7	M4-M5
其它门式起重机 (带小车或转台) Other gantry cranes (with cars and rotary tables)	吊钩 Dr op hanger	M4-M5	M4-M5	-	M4-M5	M4-M5
卸料桥、集装箱门式起重机 (带小车或转台) Discharging bridge, Container gantry crane (with cars and rotary tables)	抓斗或磁铁 Gr ab or magnet	M8	M5-M6	M3-M4	M7-M8	M4-M5
船坞起重机、船台起重机、拆卸用起重机 Dock crane, slipway crane, disassembly use crane	吊钩 Dr op hanger	M5-M6	M4-M5	M4-M5	M4-M5	M5-M6
港口起重机 (可转动、门式 ...), 浮式起重机及浮式起重架 Port crane (rotary, gate type)	吊钩 Dr op hanger	M6-M7	M5-M6	M5-M6	-	M3-M4
港口起重机 (可转动、门式 ...) 浮式起重机及浮式起重架 Floating crane, floating hoist frame	抓斗或磁铁 Gr ab or magnet	M7-M8	M6-M7	M6-M7	-	M4-5
浮式起重机和浮式起重架, 用于非常高的负荷 (一般在 100t 以上) Floating crane and floating hoist frame for heavy load ( above 100t )		M3-M4	M3-M4	M3-M4	-	-
甲板起重机 Deck crane	吊钩 Drop hanger	M4	M3-M4	M3-M4	M2	M3
甲板起重机 Deck crane	抓斗或磁铁 Grab or magnet	M5-M6	M3-M4	M3-M4	M4-M5	M3-M4
塔式起重机、用于建筑工地 Tower crane for construction site		M4	M5	M4	M3	M3
门式起重吊塔 Gate type derrick tower		M2-M3	M1-M2	M1-M2	-	-
铁路起重机, 允许用于铁路维修 Railway crane allowed for railway maintenance		M3-M4	M2-M3	M2-M3	-	-
汽车起重机 Automobiles crane	吊钩 Dr op hanger	M3-M4	M2-M3	M2-M3	-	-

(1) 此项仅列出了某些典型应用, 仅供参考

(1) only list the typical examples for your reference