

台州永畅液压机械有限公司

Taizhou Eternal Hydraulic Machine Co., Ltd

地址：浙江省台州市仙居县安洲街道西泉路11号（中国）
ADD:NO.11 Xiquan Road,Anzhou Street,Xianju County,Taizhou
City,Zhejiang,China Contact person:Mr.Leo Wu (吴超群)
Mobile: +86-13656579545 (Wechat/Whatsapp)
Skype: leowu1986

Tel: +86-576-89370768

Fax: +86-576-89370769

Email: leo@xjetl.com

Web: www.xjetl.com
www.facebook.com/etlhydraulic
[https:// taizhouyongchang.en.alibaba.com/](https://taizhouyongchang.en.alibaba.com/)

PISTON

HYDRAULIC MOTOR PRODUCT
MANUALS

柱塞马达产品手册



台州永畅液压机械有限公司

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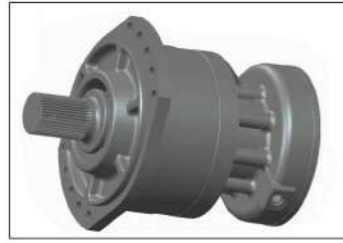
PRODUCTS APPLICATION 产品应用

公司生产的各类产品可广泛应用于矿山建筑工程机械、起重运输设备、重型冶金机械、石油煤矿机械、船舶甲板机械、机床、轻工、塑料机械、地质钻探设备、农业和林业机械、矿物机械、建筑设备和工作平台、割草机、特殊车辆、渔业卷扬机、工具机、木工和锯木机、橡胶机械等各种机械的液压传动系统中。特别适用于注塑机的螺杆驱动、提升绞盘、卷筒的驱动、各种回转机构的驱动履带和轮子行走机构的驱动。

All kinds of products manufactured by the Company can be widely applied in the hydraulic drive systems of mine construction machinery, cranes and transporting equipment, heavy-type metallurgic machinery, petroleum and coal mine machinery, vessel deck machinery, machine tools, light industry, plastic machinery, geological drilling equipment, agricultural and forest machinery, mineral equipment, construction equipment and working platform, lawn mowers, special vehicles, fishery winches, machine tools, carpenter machinery and sawing machines, and rubber machinery. These products are especially applicable to screw drives of plastics injection machines, the drives of lifting winches and winding drums, and driving tracks of rotating mechanisms and the drive of wheel traveling mechanisms.



● 产品概述 INTRODUCTION



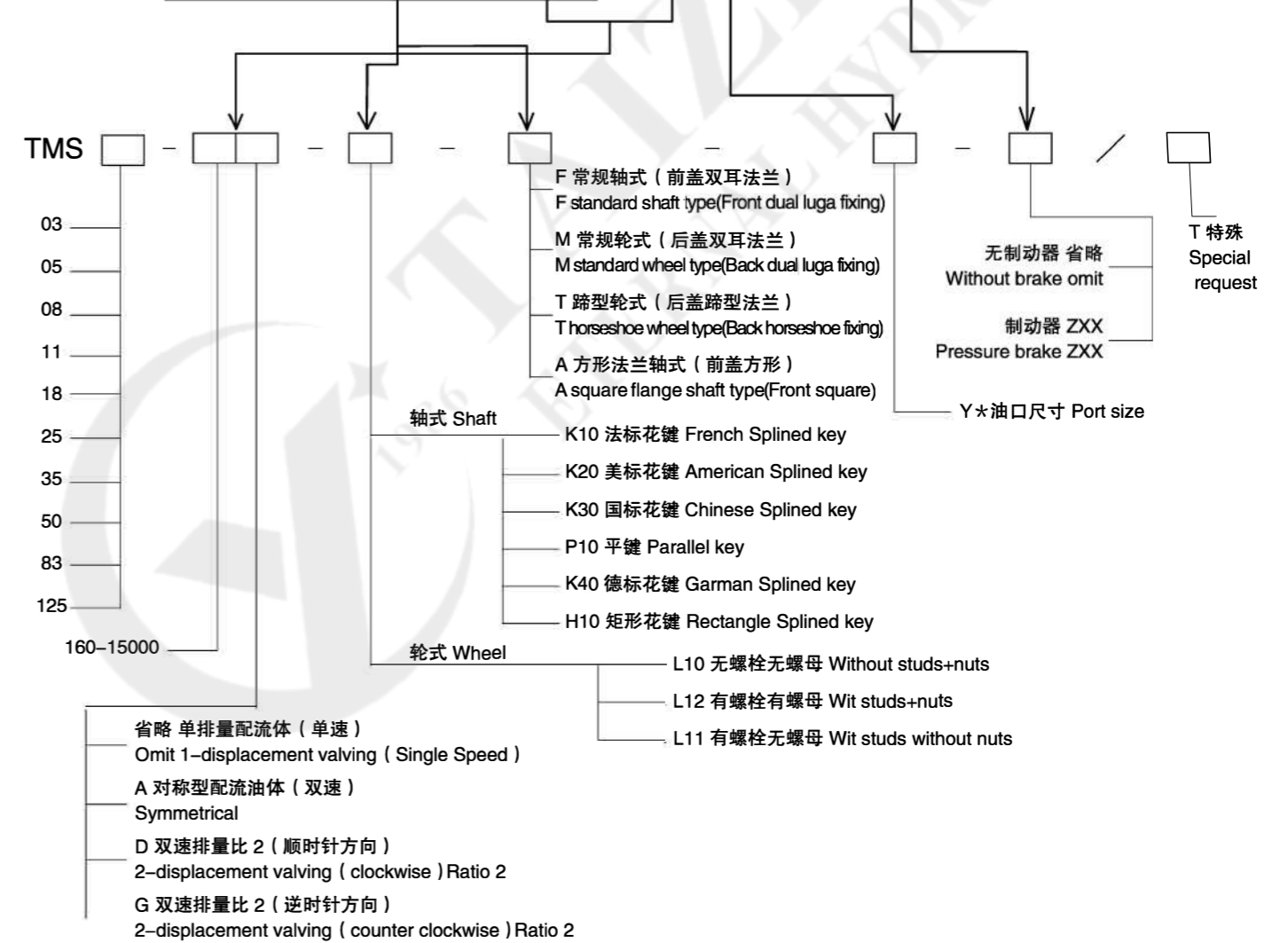
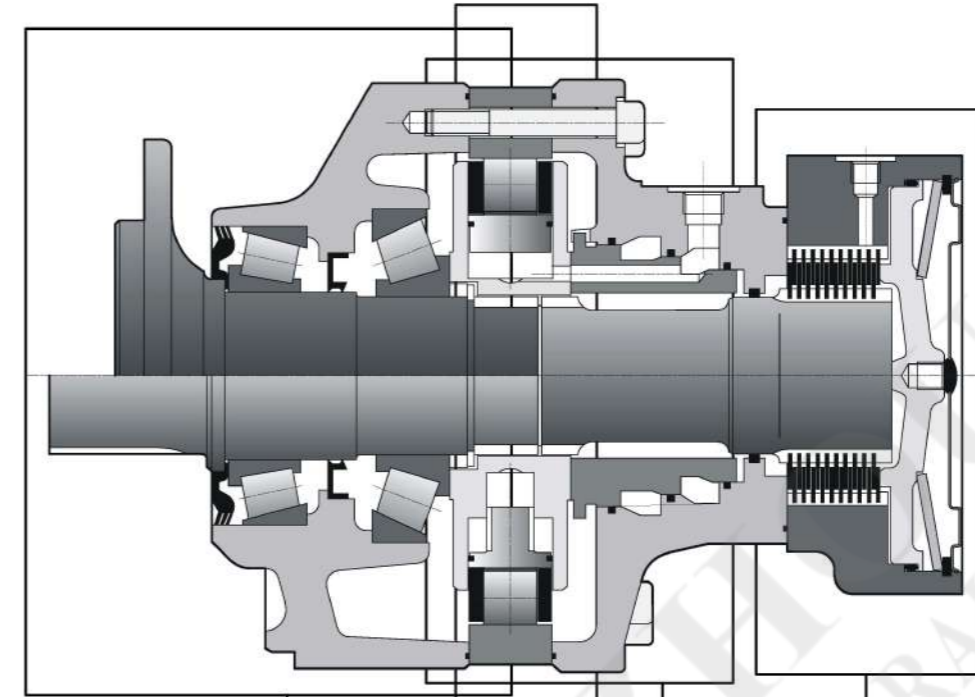
TMS 系列液压马达是一种低速大扭矩的内曲线式径向柱塞马达，采用端面配油方式，滚柱式结构，使用压力高，低速稳定性好，同时可集成各类阀组，制动器，特别适用于车轮式行走驱动工况，此马达广泛应用于矿山机械，起重机械，地质钻探，工程建设等领域。

TMS is one kind of low speed high torque radial piston motor with advanced design in disc distribution flow, piston structure, high pressurerating, smooth running at very low speeds, available with different valves, brakes. It is widely applied in mining, crane, geologic drilling, constructionmachinery,etc.

● 性能特点 CHARACTERISTICS

- ※ 模块化设计：
马达整体结构按模块化设计，片式叠装，包括机械输出装置，液压功能装置，机械制动装置三部分，因而能方便与各种主机优化配套；
- ※ 工作压力高，低速稳定性好：
采用自动补偿式平面配油，对压力和温度敏感度低，自动补偿配流摩擦副间的磨损，从而长时期保证马达很高容积效率，最高工作压力能到 35Mpa；对称式柱塞布局，启动效率高，低速性能好，最低稳定转速 ≤ 5r.p.m；
- ※ 承受径向和轴向载荷：
采用独立设置机械输出装置，轴承和输出轴的设计可靠，动力驱动装置径向力平衡且为纯扭矩输出，因而马达可承受较大的轴向力和径向力，可以是直接齿轮输出或直接安装在车辆驱动轮上；
- ※ 多种功能可搭配使用：
马达可加装各类液压阀，机械式制动器，轮式输出轴等原件，马达可做成双排量，多功能搭配以满足各个领域用户的需要；
- ※ Modular design：
Motor intrgal structure according to the modular design, with chip stacking, including mechanical output device, hydraulic device, mechanical brake device of three parts, which can be conveniently matched with various host optimization.
- ※ High pressure, Excellent low-speed stability：
Using the automatic compensation oil distributor of plane type, with low sensitivity of pressure and temperaturem, automaticcompensating the wear of the friction pair, so as to ensure high volumetric efficiency of motor for any time, the highest workingpressure to 35Mps; symmetrical piston, high start officiency, excellent low-speed performance, the lowest stable speed id less than or equal to 5r.p.m.
- ※ Bear axial and radial force
Using an independent set of mechanical output device, reliable designing of output shaft and bearing, The power driving device with balance radial force and pure torque outputs, So the motor can bear large axial force and radial force, can be directly with gear output or installed on the vehicle driving wheel.
- ※ Multi-functions
The motor can be added all kinds of hydraulic valves, mechanical brake, wheel output shaft and other components, motor can make a double displacement, Multi-functions collocation can meet the needs of users in various fields.

● 马达编码 MOTOR CODE



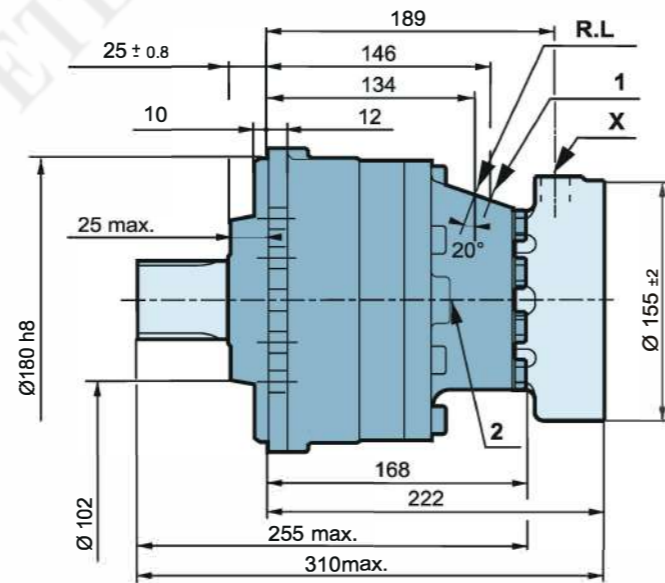
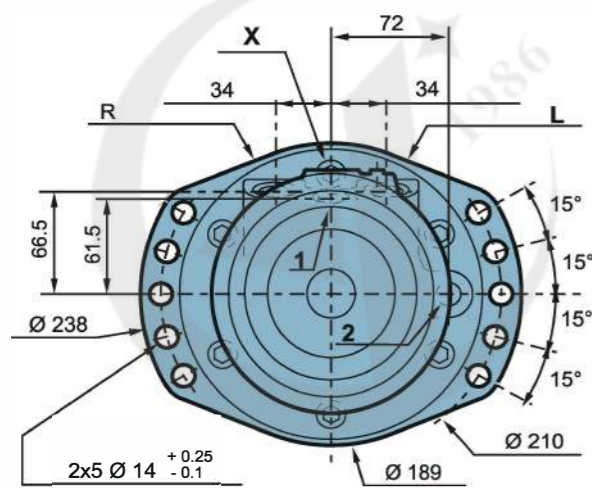
● 技术参数 TECHNICAL DATA

| 型号 TYPE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS03-160 | 160 | 80 | 40 | 25 | 605 | 24 | 0-250 | 16 |
| TMS03-230 | 225 | 113 | 40 | 25 | 850 | 34 | 0-250 | 16 |
| TMS03-250 | 255 | 127 | 40 | 25 | 964 | 38 | 0-250 | 16 |
| TMS03-280 | 280 | 140 | 40 | 25 | 1058 | 42 | 0-250 | 16 |
| TMS03-320 | 325 | 162 | 35 | 25 | 1229 | 49 | 0-200 | 16 |
| TMS03-360 | 365 | 182 | 35 | 25 | 1380 | 55 | 0-200 | 16 |
| TMS03-400 | 400 | 200 | 35 | 25 | 1512 | 60 | 0-200 | 16 |

轴马达 SHAFT MOTOR

● 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS03-**-**-F-Y*

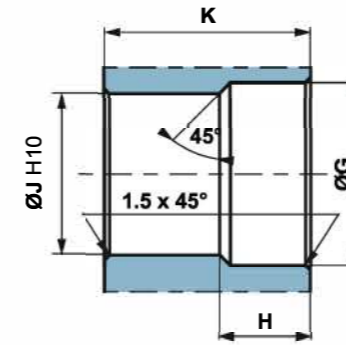
| | | |
|--|--------|--------|
| | 21 kg | 31 kg |
| | 0,80 L | 0,70 L |
| | | |



● 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | F |
|-----|------------------------|------|------|---------|----|----|
| K10 | NF E22-141 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 40 | | | | | |
| | 15 | R2 | 23.8 | 2 x M10 | 19 | 49 |
| K40 | DIN 5480 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 50 | | | | | |
| | 15 | R2.5 | 23.8 | 2 x M10 | 22 | 60 |

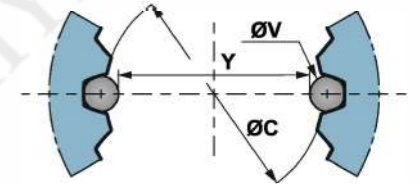
● 花键套联接 SPLINED COUPLINY



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

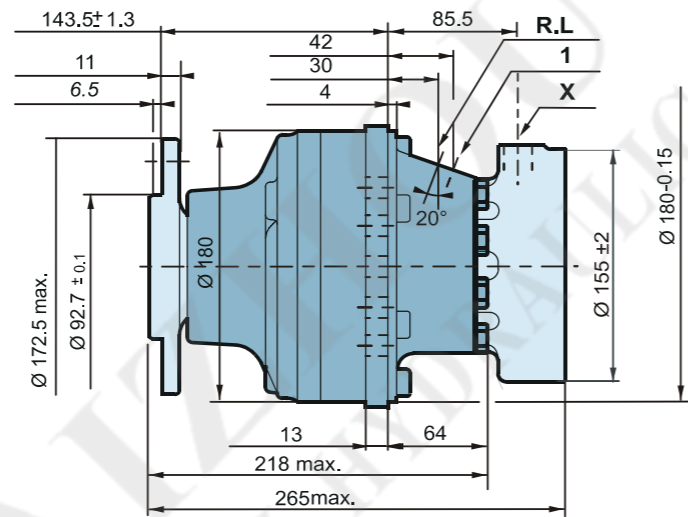
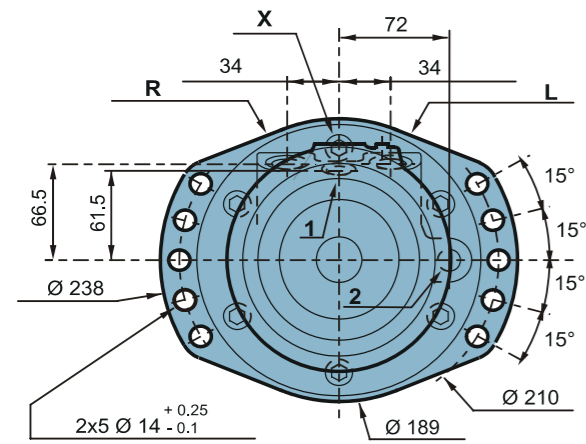


| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|-----|----------|----|----------|------|----|-------|----|-----------|---------------|----------|--------|----------------------|
| K10 | 41.3 | 20 | 36.7 | 48.3 | 40 | 1.667 | 22 | - | 36.7 | 3.5 | 33.446 | +86/0 |
| K40 | 51.5 | 23 | 46 | 59 | 50 | 2 | 24 | -0.1 | 46 | 3.5 | 42.6 | +72/0 |

轮边马达 WHEEL MOTOR

- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS03-**-**-M-Y*

| | | |
|--|--------|--------|
| | 21 kg | 31 kg |
| | 0,80 L | 0,70 L |
| | | |



- 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | N | 轮辋安装 Wheelrim mounting | L |
|-----|-------|------|------|-------|--------|-----|---------------------------|----|
| L10 | Φ92.7 | Φ140 | Φ169 | 143.4 | Φ179.5 | Φ18 | 5 × M14 × 1.5 | 11 |
| L20 | Φ77.6 | Φ130 | Φ169 | 140.6 | Φ179.5 | Φ18 | 5 × M14 × 1.5 | 11 |

- 螺栓 STUDS

| | P mm | Cmin.mm | Cmax.mm | D mm | 等级 | (1)* N.m | (2)* N.m |
|-----------------------|------------|---------|---------|------|------|-------------|-------------|
| 各种螺栓 Various studs | M14 × 1.5 | 45 | 18 | 16.5 | 12.9 | 200 | 250 |
| | M14 × 1.5 | 50 | 23 | | | | |
| | M14 × 1.5 | 62 | 33 | | | | |
| | M16 × 1.5 | 50 | 23 | 21 | | | |
| 螺钉 Screws | M12 × 1.75 | | | | 10.9 | 120 | 120 |
| | 1/2-20 UNF | | | | 8.8 | | |

- 连接油口 CONNECTIONS

| | 旧标准 Old standard | 标准 Standard | 主油口 Power supply | 变量油口 Displacement control | 壳体泄油口 Case drain | 驻车制动控制油口 Control of parking break |
|----|---------------------|----------------|---------------------|------------------------------|---------------------|--------------------------------------|
| | | | R-L | | 1.2 | X |
| Y4 | SAE J514 | ISO 11 926-1 | 7/8"-14 UNF | | 9/16"-18 UNF | 9/16"-18 UNF |
| Y | BSPP | ISO 1 197-1 | G1/2" | | G3/8" | G3/8" |
| Y1 | NF E46 050 | ISO 9 974-1 | M22 × 1.5 | | M18 × 1.5 | M18 × 1.5 |

- 制动器 BRAKES

| | Z 02 | Z 05 |
|------------------------------------|----------------------------|--------------------|
| 制动腔内压力为0时制动器的制动扭矩 (新制动器) | 1400Nm | 2500Nm |
| 制动腔内压力为0时紧急制动扭矩 (最多可作紧急制动使用10次) | 910Nm | 1625Nm |
| 制作腔内压力为0时剩余的驻车制动 扭矩* | 1050Nm | 1875Nm |
| 最小的制动器释放压力 | Min,brake release pressure | 12bar |
| 最大的制动器释放压力 | Max,brake release pressure | 30bar |
| 油量 | Oil capacity | 100cm ³ |
| 用于制动器释放的液压油量 | Volume for brake release | 16cm ³ |

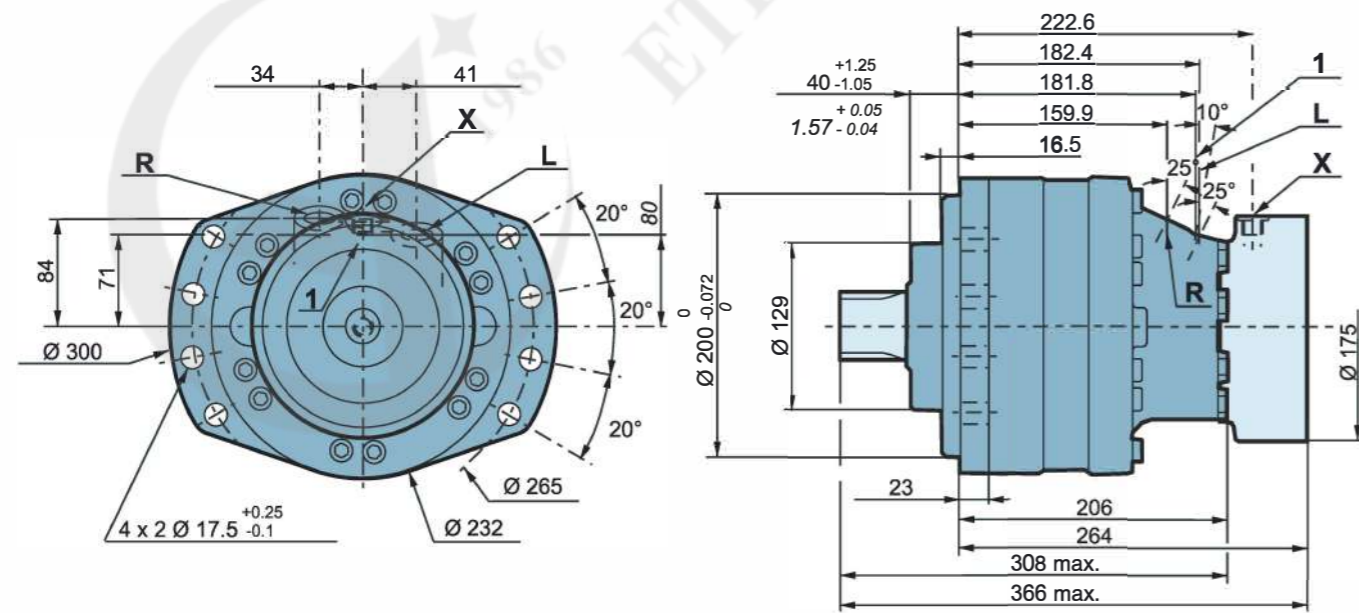
● 技术参数 TECHNICAL DATA

| 型号 TYF PE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|--------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS05-380 | 376 | 188 | 40 | 25 | 1421 | 56 | 0-200 | 25 |
| TMS05-470 | 468 | 234 | 40 | 25 | 1769 | 70 | 0-200 | 25 |
| TMS05-520 | 514 | 257 | 40 | 25 | 1943 | 77 | 0-200 | 25 |
| TMS05-560 | 560 | 280 | 40 | 25 | 2117 | 84 | 0-200 | 25 |
| TMS05-620 | 625 | 312.5 | 35 | 25 | 2363 | 94 | 0-190 | 25 |
| TMS05-680 | 688 | 344 | 35 | 25 | 2601 | 104 | 0-180 | 25 |
| TMS05-750 | 750 | 375 | 35 | 25 | 2836 | 113 | 0-160 | 25 |

轴马达 SHAFT MOTOR

● 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS05-**-**-F-Y*

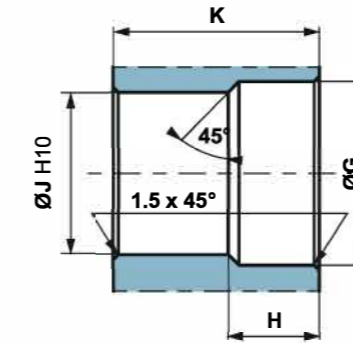
| | | |
|--|--------|--------|
| | 41 kg | 47 kg |
| | 1.00 L | 1.00 L |
| | | |



● 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | F | G |
|--|----|------|--------------|---------|------|----|---|
| K40 DIN 5480 花键 Splines 公称直径 Nominal Φ 55 模数 Module 3 Z 17 | 15 | R2.3 | 23.8 | 2 x M10 | 23 | 60 | - |
| K10 NF E22-141 花键 Splines 公称直径 Nominal Φ 50 模数 Module 1.667 Z 28 | 15 | R2.3 | 23.8 | 2 x M10 | 20 | 54 | - |
| P10 DIN 6885 平键 Flat key X 14 Y 52.5 max. | 25 | R2 | Φ 49.99 | M12 | 71.5 | 82 | 5 |

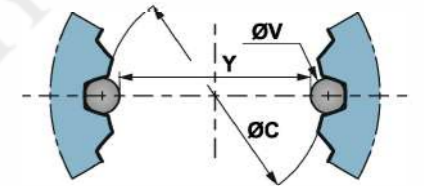
● 花键套联接 SPLINED COUPLINY



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)



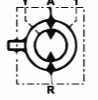
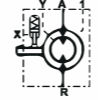
标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

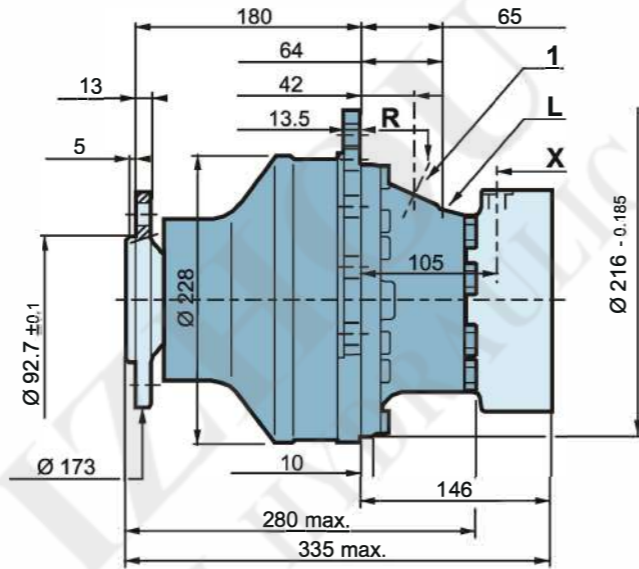
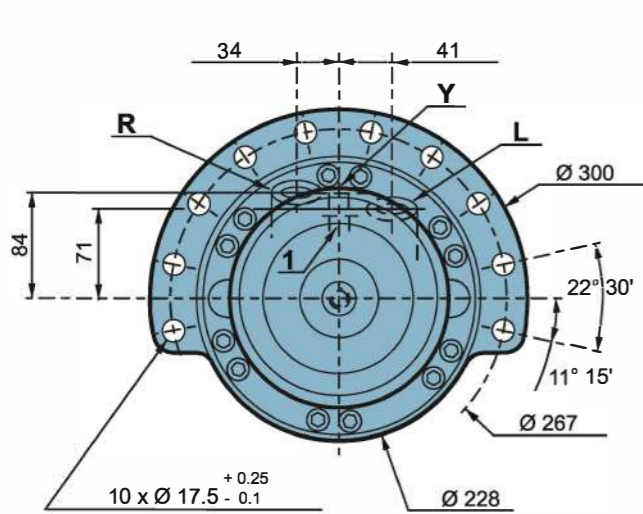


| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|------------|----------|----|----------|----|----|-------|----|-----------|---------------|----------|--------|----------------------|
| K40 | 56.5 | 24 | 49 | 59 | 55 | 3 | 17 | +0.35 | 49 | 5.25 | 43.807 | +78/0 |
| K10 | 51 | 23 | 46.7 | 53 | 50 | 1.667 | 28 | +1.333 | 46.7 | 3.333 | 43.446 | +86/0 |

轮边马达 WHEEL MOTOR

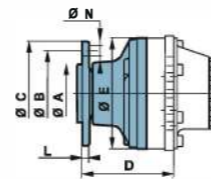
- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS05-**-**-T-Y*

| | | |
|--|---|---|
|  | 41 kg | 52 kg |
|  | 0.50 L | 0.50 L |
| |  |  |



- 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | N | 轮辋安装 Wheelrim mounting | L |
|-----|--------|------|------|-------|------|-----|---------------------------|------|
| L10 | Φ92.7 | Φ140 | Φ170 | 178.6 | Φ228 | Φ18 | 10 × M14 × 1.5 | 11 |
| L20 | Φ160.7 | Φ205 | Φ245 | 178.5 | Φ228 | Φ20 | 6 × M18 × 1.5 | 14 |
| L30 | Φ95.7 | Φ140 | Φ180 | 145.4 | Φ228 | Φ18 | 5 × M14 × 1.5 | 10.5 |



- 螺栓 STUDS

| | P mm | Cmin.mm | Cmax.mm | D mm | 等级 | (1)* N.m | (2)* N.m |
|-----------------------|------------|---------|---------|------|------|-------------|-------------|
| 各种螺栓 Various studs | M14 × 1.5 | 45 | 18 | 16.5 | 12.9 | 200 | 250 |
| | M14 × 1.5 | 50 | 23 | | | | |
| | M14 × 1.5 | 62 | 33 | | | | |
| | M16 × 1.5 | 65 | 28 | | | | |
| 螺钉 Screws | M12 × 1.75 | - | - | 23.0 | 10.9 | 120 | 120 |
| | 1/2-20 UNF | - | - | - | 8.8 | - | - |

- 连接油口 CONNECTIONS

| | 旧标准 Old standard | 标准 Standard | 主油口 Power supply | 变量油口 Displacement control | 壳体泄油口 Case drain | 驻车制动控制油口 Control of parking break |
|----|---------------------|----------------|---------------------|------------------------------|---------------------|--------------------------------------|
| | | | R-L | Y | 1.2 | X |
| Y5 | SAE J514 | ISO 11 926-1 | 1"1/16-12 UNF | 3/4"-16 UNF | 3/4"-16 UNF | 9/16"-18 UNF |
| Y | BSPP | ISO 1 179-1 | G 3/4" | G 1/4" | G 3/8" | G 1/4" |
| Y3 | DIN 3852 | ISO 9 974-1 | M27 × 2 | M14 × 1.5 | M16 × 1.5 | M14 × 1.5 |
| Y1 | NF E48 050 | ISO 6 149-1 | M18 × 1.5 | M14 × 1.5 | M14 × 1.5 | M14 × 1.5 |

- 制动器 BRAKES

| | Z 04 | Z 05 |
|------------------------------------|----------------------------|-------------------|
| 制动腔内压力为0时制动器的制动扭矩 (新制动器) | 3060Nm | 3060Nm |
| 制动腔内压力为0时紧急制动扭矩 (最多可作紧急制动使用10次) | 1990Nm | 1990Nm |
| 制作腔内压力为0时剩余的驻车制动 扭矩* | 2295Nm | 2995Nm |
| 最小的制动器释放压力 | Min,brake release pressure | 12bar |
| 最大的制动器释放压力 | Max,brake release pressure | 30bar |
| 油量 | Oil capacity | 70cm ³ |
| 用于制动器释放的液压油量 | Volume for brake release | 32cm ³ |
| 制动器承受压力 | Brake bearing pressure | 50bar |

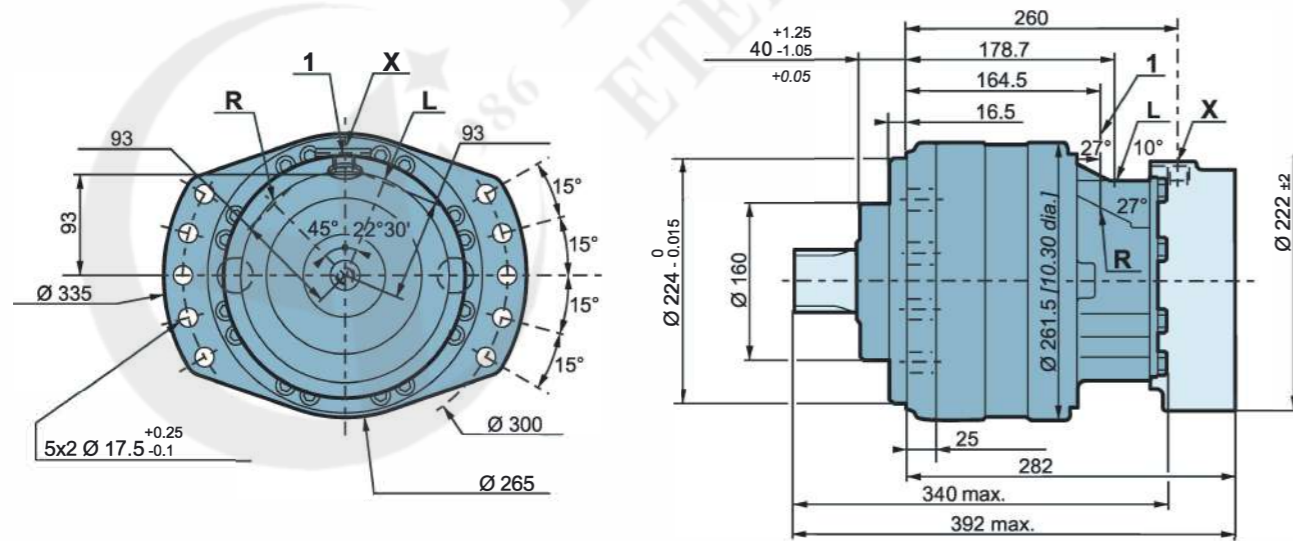
● 技术参数 TECHNICAL DATA

| 型号 TYPE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS08-630 | 627 | 314 | 40 | 25 | 2371 | 94 | 0-170 | 36 |
| TMS08-700 | 702 | 351 | 40 | 25 | 2654 | 106 | 0-170 | 36 |
| TMS08-780 | 780 | 390 | 40 | 25 | 2949 | 117 | 0-170 | 36 |
| TMS08-860 | 857 | 429 | 40 | 25 | 3241 | 129 | 0-170 | 36 |
| TMS08-930 | 934 | 467 | 40 | 25 | 3532 | 141 | 0-170 | 36 |
| TMS08-1050 | 1043 | 522 | 35 | 25 | 3944 | 157 | 0-100 | 36 |
| TMS08-1150 | 1146 | 573 | 35 | 25 | 4333 | 173 | 0-100 | 36 |
| TMS08-1250 | 1248 | 624 | 35 | 25 | 4719 | 188 | 0-90 | 36 |

轴马达 SHAFT MOTOR

● 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS08-**-**-F-Y*

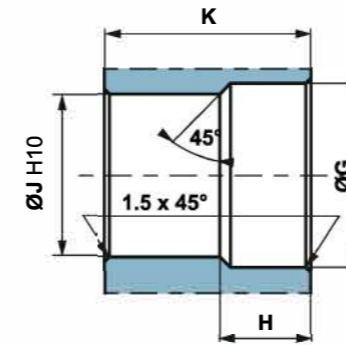
| | | |
|--|--------|--------|
| | 62 kg | 80 kg |
| | 1.50 L | 1.00 L |



● 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | F |
|--|----|------|--------------|---------|----|-----|
| K40 DIN 5480 花键 Splines 公称直径 Nominal Φ 70 模数 Module 3 Z 22 | 15 | R2.5 | 35 | 2 x M10 | 23 | 70 |
| K10 NF E22-141 花键 Splines 公称直径 Nominal Φ 65 模数 Module 2.5 Z 24 | 15 | R2.5 | 35 | 2 x M10 | 24 | 70 |
| P10 DIN 6885 平键 Flat key X 20 Y 74 max. | 30 | R2.5 | Φ 69.99 | M16 | 90 | 106 |

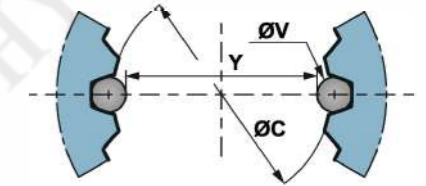
● 花键套联接 SPLINED COUPLINY



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

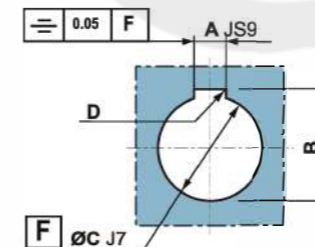
标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)



| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|-----|----------|----|----------|----|------|-----|----|-----------|---------------|----------|--------|----------------------|
| K10 | 66 | 25 | 60 | 69 | 65 | 2.5 | 24 | 2 | 60 | 5 | 55.169 | +86/0 |
| K40 | 71.5 | 25 | 64 | 69 | 70.0 | 3 | 22 | +0.35 | 64 | 5.25 | 59.042 | +76/28 |

● 平键连接 CYLINDRICAL KEYED COUPLINY

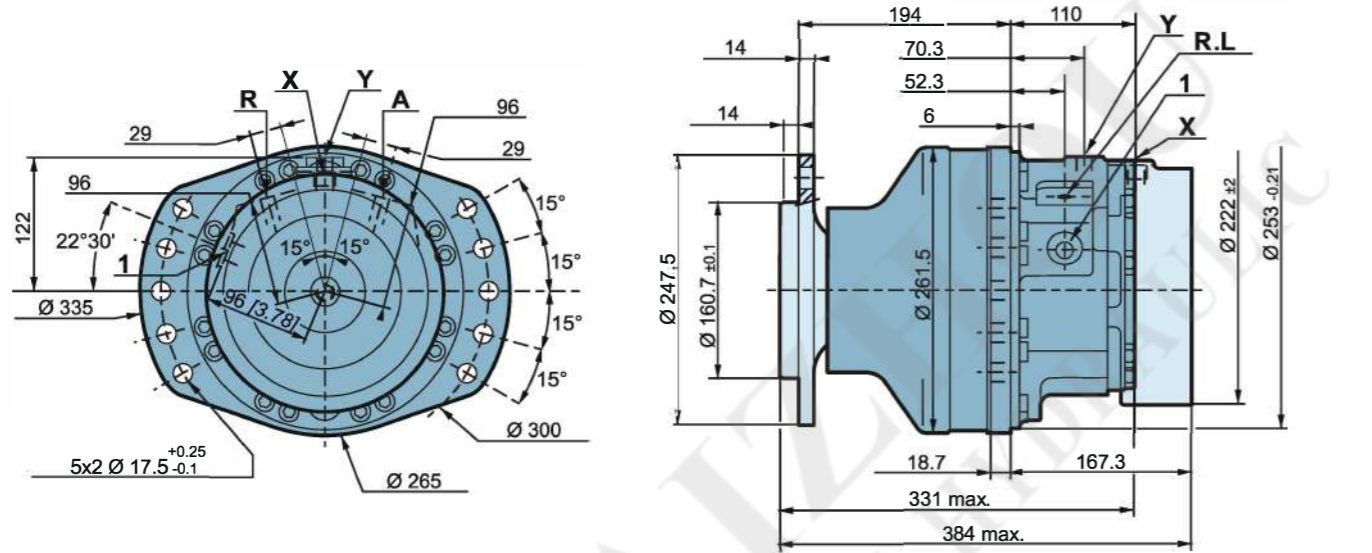


| | A | B | Φ C | D |
|-----|------------|--|----------|-----|
| P10 | 20 ± 0.026 | 74.1 $\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$ | 70 | 0.7 |

轮边马达 WHEEL MOTOR

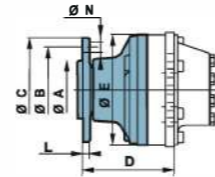
- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS08-**-**-M-Y*

| | | |
|--|--------|--------|
| | 65 kg | 84 kg |
| | 1.50 L | 1.00 L |



- 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | N | 轮辋安装 Wheelrim mounting | L |
|-----|--------|--------|------|-------|--------|----------|---------------------------|------|
| L10 | Φ160.7 | Φ205 | Φ245 | 195 | Φ261.5 | 6 × Φ20 | M18 × 1.5 | 13.5 |
| L20 | Φ150.9 | Φ203.2 | Φ238 | 194.1 | Φ261.5 | 8 × Φ22 | M20 × 1.5 | 13.5 |
| L30 | Φ175.7 | Φ225 | Φ270 | 188.8 | Φ261.5 | 10 × Φ18 | M16 × 1.5 | 15 |



- 螺栓 STUDS

| | P mm | Cmin.mm | Cmax.mm | D mm | 等级 | (1)* N.m | (2)* N.m |
|-----------------------|------------|---------|---------|------|------|-------------|-------------|
| 各种螺栓 Various studs | M14 × 1.5 | 45 | 15 | 16.5 | 12.9 | 200 | 250 |
| | M18 × 1.5 | 55 | 18 | 23.0 | | 420 | 550 |
| | M18 × 1.5 | 60 | 23 | 25 | | 600 | 770 |
| | M20 × 1.5 | 60 | 21 | 25 | | 600 | 770 |
| | M22 × 1.5 | 55 | 15 | 26 | | 695 | 1050 |
| | M22 × 1.5 | 80 | 40 | 26 | | 695 | 1050 |
| 螺钉 Screws | M12 × 1.75 | - | - | - | 10.9 | 120 | 120 |
| | 1/2-20 UNF | - | - | - | 10.9 | 250 | 120 |

- 连接油口 CONNECTIONS

| | 旧标准 Old standard | 标准 Standard | 主油口 Power supply | 变量油口 Displacement control | 壳体泄油口 Case drain | 驻车制动控制油口 Control of parking break |
|----|-----------------------|--------------------------|---------------------|------------------------------|---------------------|--------------------------------------|
| | | | R-L | Y | 1.2 | X |
| Y5 | SAE J514 | ISO 11 926-1 | 1"1/16-12 UNF | 9/16" -18 UNF | 3/4" -16 UNF | 9/16" -18 UNF |
| Y4 | ISO 6 162 DIN 3852 | ISO 6 162 ISO 9 974-1 | DN13 PN400 | M14 × 1.5 | M18 × 1.5 | M16 × 1.5 |
| Y2 | NF E48 050 | ISO 9 974-1 | M22 × 1.5 | M14 × 1.5 | M18 × 1.5 | M16 × 1.5 |
| Y3 | DIN 3852 | ISO 6 149-1 | M27 × 2 | M14 × 1.5 | M18 × 1.5 | M16 × 1.5 |

- 制动器 BRAKES

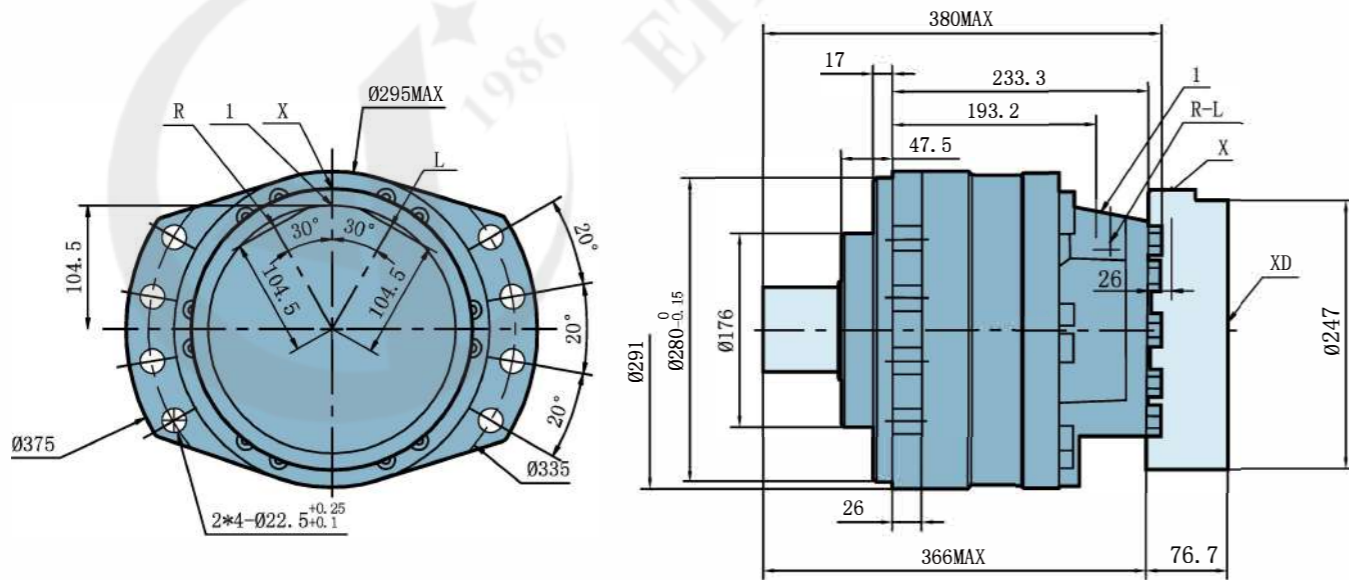
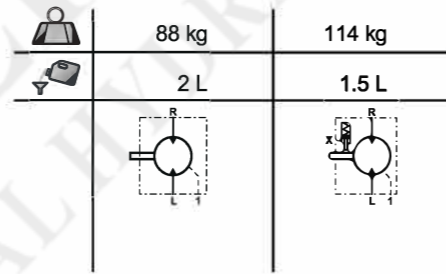
| | Z 08 | Z 09 |
|------------------------------------|----------------------------|--------------------|
| 制动腔内压力为0时制动器的制动扭矩 (新制动器) | 5620Nm | 9000Nm |
| 制动腔内压力为0时紧急制动扭矩 (最多可作紧急制动使用10次) | 3653Nm | 5850Nm |
| 制动腔内压力为0时剩余的驻车制动 扭矩* | 4215Nm | 6750Nm |
| 最小的制动器释放压力 | Min,brake release pressure | 12bar |
| 油量 | Oil capacity | 100cm ³ |
| 用于制动器释放的液压油量 | Volume for brake release | 40cm ³ |

● 技术参数 TECHNICAL DATA

| 型号 TYPE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS11-840 | 837 | 419 | 40 | 25 | 3165 | 126 | 0-150 | 44 |
| TMS11-950 | 943 | 472 | 40 | 25 | 3566 | 142 | 0-150 | 44 |
| TMS11-1050 | 1048 | 524 | 40 | 25 | 3963 | 158 | 0-150 | 44 |
| TMS11-1260 | 1259 | 630 | 40 | 25 | 4761 | 190 | 0-150 | 44 |
| TMS11-1270 | 1263 | 632 | 35 | 25 | 4776 | 191 | 0-150 | 44 |
| TMS11-1400 | 1404 | 702 | 35 | 25 | 5309 | 212 | 0-80 | 44 |
| TMS11-1550 | 1536 | 768 | 35 | 25 | 5808 | 232 | 0-80 | 44 |
| TMS11-1700 | 1687 | 844 | 35 | 25 | 6379 | 255 | 0-80 | 44 |

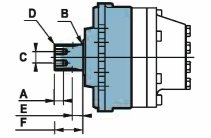
轴马达 SHAFT MOTOR

● 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS11-**-**-F-Y*

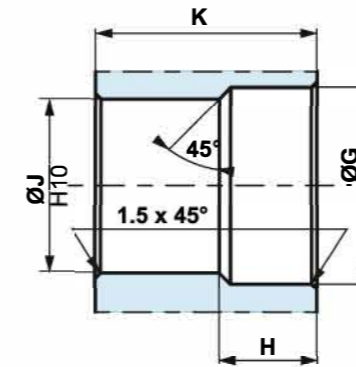


● 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | F |
|-----|------------------------|-------|----|---------|----|----|
| K40 | DIN 5480 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 80 | | | | | |
| | 15 | R2.75 | 35 | 2 x M10 | 23 | 80 |
| K10 | NF E22-141 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 75 | | | | | |
| | 15 | R2.75 | 35 | 2 x M10 | 24 | 70 |



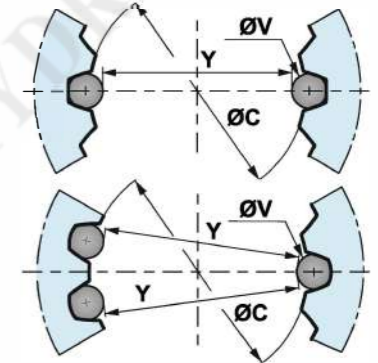
● 花键套联接 SPLINED COUPLINY



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

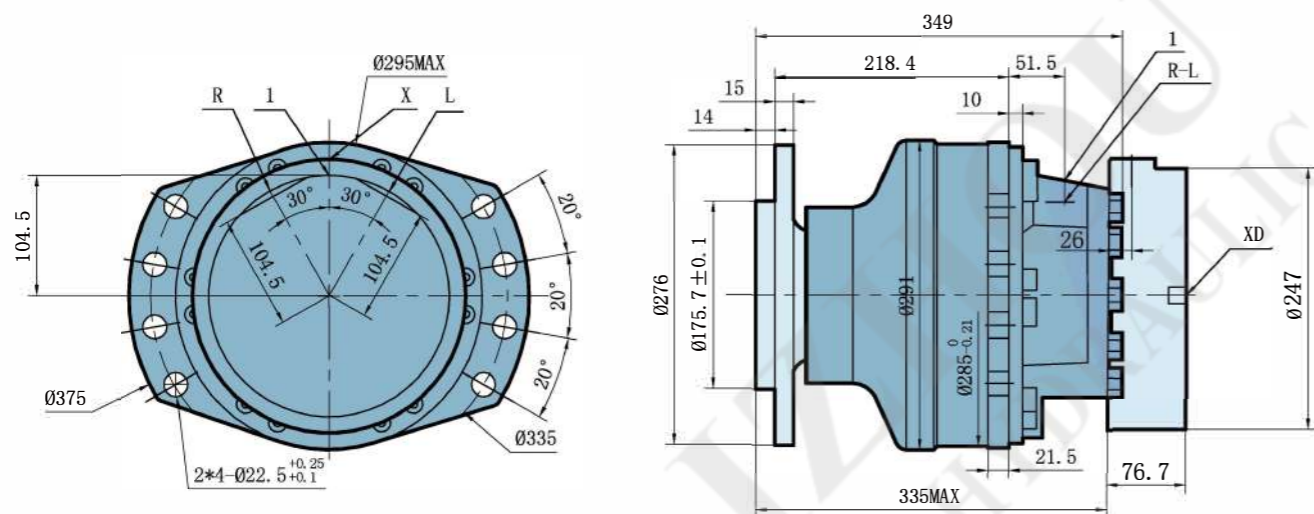


| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|-----|----------|----|----------|----|----|-----|----|-----------|---------------|----------|--------|----------------------|
| K10 | 76 | 25 | 70 | 69 | 75 | 2.5 | 28 | 2 | 70 | 5 | 65.169 | +103/0 |
| K40 | 81.5 | 25 | 74 | 79 | 80 | 3 | 25 | 0.85 | 74 | 5.25 | 68.957 | +71/0 |

轮边马达 WHEEL MOTOR

- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS11-**-**-M-Y*

| | | |
|--|-------|--------|
| | 86 kg | 112 kg |
| | 2 L | 1.5 L |
| | | |



- 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | N | 轮辋安装 Wheelrim mounting | L |
|-----|--------|------|------|-------|------|-----|---------------------------|----|
| L10 | Φ175.7 | Φ225 | Φ276 | 218.6 | Φ291 | Φ24 | 5 × M22 × 1.5 | 14 |
| L20 | Φ175.7 | Φ225 | Φ276 | 218.6 | Φ291 | Φ22 | 10 × M20 × 1.5 | 14 |

- 螺栓 STUDS

| | P mm | Cmin.mm | Cmax.mm | D mm | 等级 | (1)* N.m | (2)* N.m |
|-----------------------|-----------|---------|---------|------|------|-------------|-------------|
| 各种螺栓 Various studs | M18 × 1.5 | 55 | 17 | 23 | 12.9 | 420 | 550 |
| | M20 × 1.5 | 60 | 14 | 25 | | 600 | 770 |
| | M22 × 1.5 | 65 | 24 | 26 | | 695 | 1050 |
| 螺钉 Screws | M12 | | | | | 120 | 120 |

- 连接油口 CONNECTIONS

| | 旧标准 Old standard | 标准 Standard | 主油口 Power supply | 壳体泄油口 Case drain | 驻车制动控制油口 Control of parking break |
|----|----------------------|--------------------------|---------------------|---------------------|--------------------------------------|
| | | | R-L | 1.2 | X |
| Y5 | SAE J514 | ISO 11 926-1 | 1"1/16-12 UNF | 3/4"-16 UNF | 9/16"-18 UNF |
| Y | ISO 6162 DIN 3852 | ISO 6 162 ISO 9 974-1 | DN19 PN40 | M18 × 1.5 | M16 × 1.5 |
| Y3 | ISO 6162 BSPP | ISO 6 162 ISO 1 179-1 | DN19 PN400 | M18 × 1.5 | M16 × 1.5 |

- 制动器 BRAKES

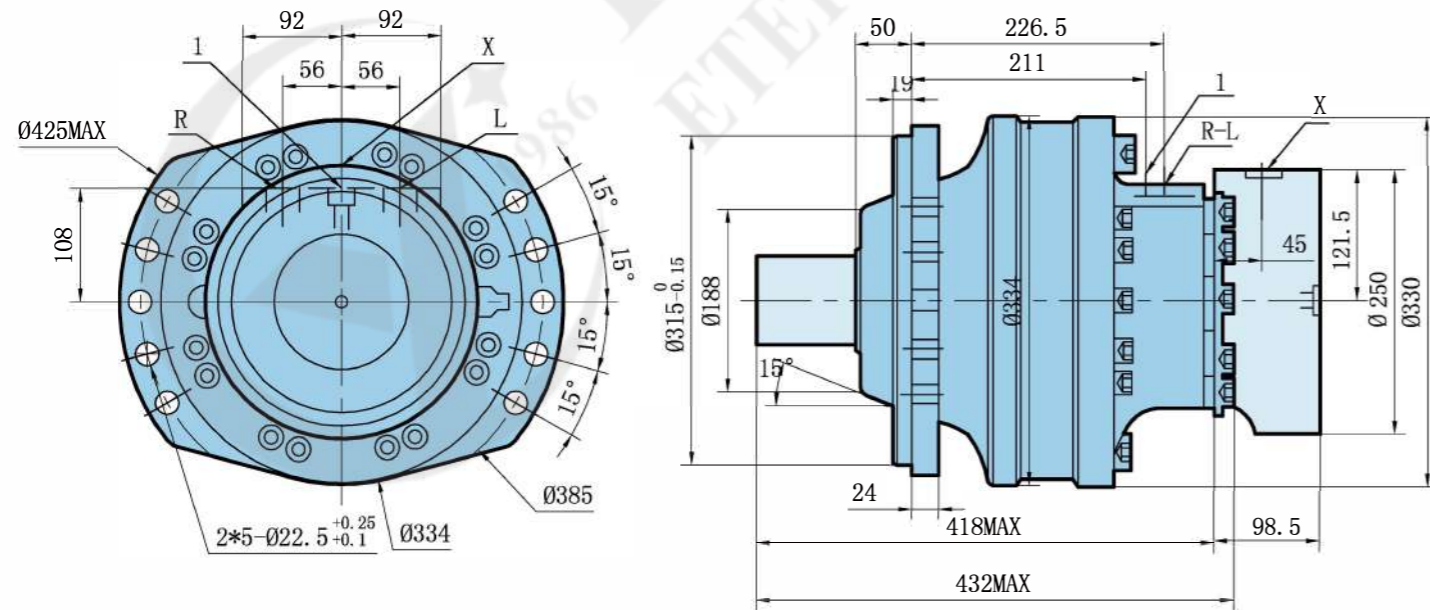
| | Z 12 | |
|------------------------------------|--|--------------------|
| 制动腔内压力为0时制动器的制动扭矩 (新制动器) | Parking brake torque at 0 bars on housing(new brake) | 11840Nm |
| 制动腔内压力为0时紧急制动扭矩 (最多可作紧急制动使用10次) | Dynamic emergency braking torque at 0 bars on housing(max 10 uses of emergency brakes) | 7695Nm |
| 制作腔内压力为0时剩余的驻车制动 扭矩* | Residual parking braking at 0 bars on housing | 8880Nm |
| 最小的制动器释放压力 | Min,brake release pressure | 12bar |
| 最大的制动器释放压力 | Max,brake release pressure | 30bar |
| 油量 | Oil capacity | 170cm ³ |
| 用于制动器释放的液压油量 | Volume for brake release | 40cm ³ |

● 技术参数 TECHNICAL DATA

| 型号 TYPE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS18-1400 | 1395 | 698 | 40 | 25 | 5275 | 211 | 0-150 | 62 |
| TMS18-1600 | 1571 | 786 | 40 | 25 | 5941 | 237 | 0-150 | 62 |
| TMS18-1700 | 1747 | 874 | 40 | 25 | 6606 | 264 | 0-150 | 62 |
| TMS18-1900 | 1911 | 956 | 40 | 25 | 7227 | 289 | 0-135 | 62 |
| TMS18-2100 | 2099 | 1050 | 40 | 25 | 7938 | 317 | 0-135 | 62 |
| TMS18-2300 | 2340 | 1170 | 35 | 25 | 8849 | 353 | 0-100 | 62 |
| TMS18-2500 | 2560 | 1280 | 35 | 25 | 9681 | 387 | 0-80 | 62 |
| TMS18-2800 | 2812 | 1406 | 35 | 25 | 10634 | 425 | 0-80 | 62 |

轴马达 SHAFT MOTOR

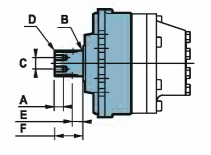
● 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS18-**-**-F-Y*



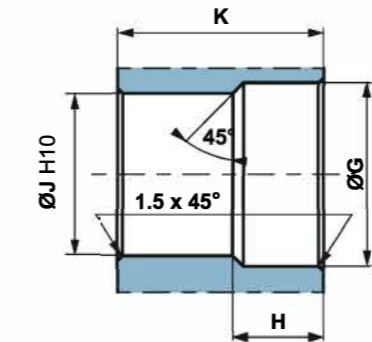
| | | |
|--|--------|--------|
| | 112 kg | 142 kg |
| | 3.00 L | 2.50 L |
| | | |

● 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | F |
|---------------|------------------------|----|----|---------|---------|----|
| K40 | 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 90 | | | | | |
| | 模数 Module 3 | 23 | R3 | 35 | 2 x M14 | 23 |
| K10 | Z 28 | | | | | |
| | 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 90 | | | | | |
| 模数 Module 2.5 | 23 | R3 | 35 | 2 x M14 | 23 | 90 |
| Z 34 | | | | | | |



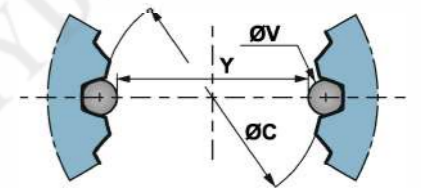
● 花键套联接 SPLINED COUPLING



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

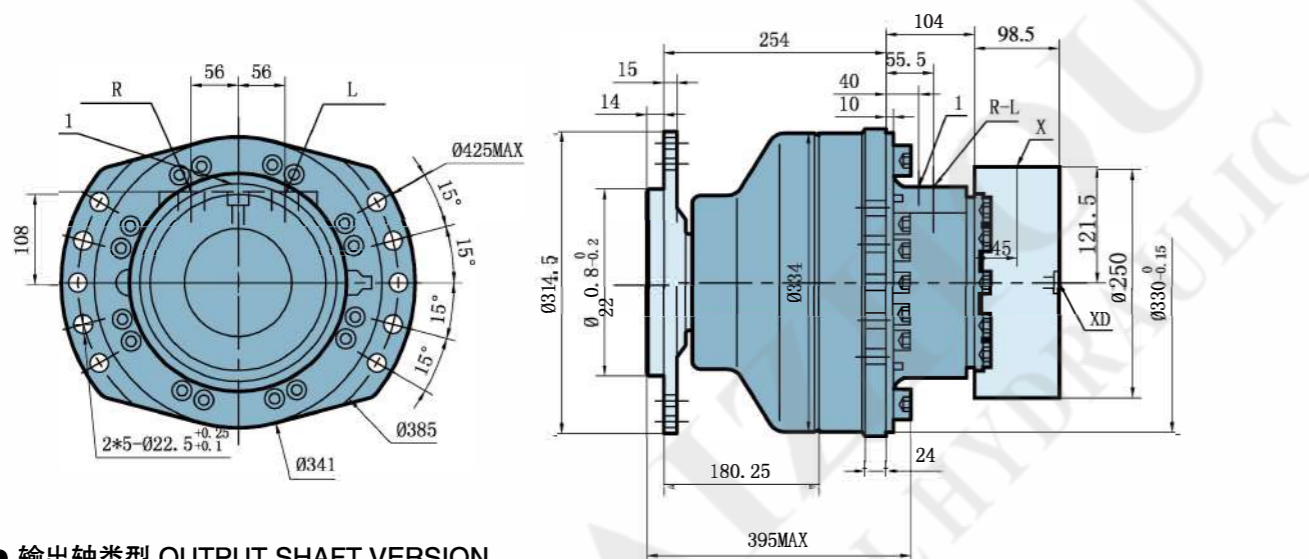
标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)



| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|-----|----------|----|----------|----|----|-----|----|-----------|---------------|----------|--------|----------------------|
| K10 | 91 | 28 | 85 | 89 | 90 | 2.5 | 34 | 2 | 85 | 5 | 80.169 | +104/0 |
| K40 | 91.5 | 25 | 84 | 89 | 90 | 3 | 28 | 1.35 | 84 | 5.25 | 79.110 | +68/0 |

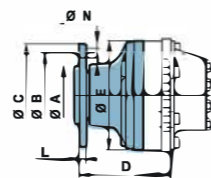
轮边马达 WHEEL MOTOR

- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS18-**-**-M-Y*



- 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | N | 轮辋安装 Wheelrim mounting | L |
|-----|--------|------|------|--------|------|-----|---------------------------|----|
| L10 | Φ175.7 | Φ225 | Φ265 | 253.45 | Φ334 | Φ24 | 10 × M22 × 1.5 | 14 |
| L20 | Φ220.7 | Φ275 | Φ314 | 253.25 | Φ291 | Φ22 | 8 × M20 × 1.5 | 14 |
| L30 | Φ220.7 | Φ275 | Φ314 | 253.25 | Φ334 | Φ22 | 8 × M20 × 1.5 | 18 |



- 螺栓 STUDS

| | P mm | Cmin.mm | Cmax.mm | D mm | 等级 | (1)* N.m | (2)* N.m | |
|-----------------------|------------|---------|---------|-------|------|-------------|-------------|------|
| 各种螺栓 Various studs | M16 × 2 | 50 | 5 | 17.75 | 12.9 | 300 | 380 | |
| | M20 × 1.5 | 60 | | 20 | | 25 | 600 | 770 |
| | M20 × 1.5 | 70 | | 27 | | 25 | 695 | 1050 |
| | M22 × 1.5 | 65 | | 24 | | 26 | | |
| | M22 × 1.5 | 80 | | 29 | | 26 | | |
| 螺钉 Screws | M16 × 1.5 | - | - | - | 10.9 | 275 | 275 | |
| | M20 × 1.75 | - | - | - | 535 | 535 | | |

- 连接油口 CONNECTIONS

| | 旧标准 Old standard | 标准 Standard | 主油口 Power supply | 壳体泄油口 Case drain | 驻车制动控制油口 Control of parking break |
|----|---------------------|----------------|---------------------|---------------------|--------------------------------------|
| | | | R-L | 1.2 | X |
| Y5 | SAE J514 | ISO 11 926-1 | 1"1/16-12 UNF | 7/8"-14 UNF | 9/16"-18 UNF 3/4"-16 UNF |
| Y3 | NF E48 050 | ISO 9 974-1 | M27 × 2 | M22 × 1.5 | M16 × 1.5 |

- 制动器 BRAKES

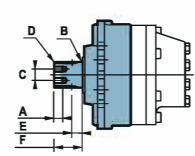
| | F 12 | F 19 |
|------------------------------------|--------------------|--------------------|
| 制动腔内压力为0时制动器的制动扭矩 (新制动器) | 11840Nm | 18600Nm |
| 制动腔内压力为0时紧急制动扭矩 (最多可作紧急制动使用10次) | 7695Nm | 12800Nm |
| 制作腔内压力为0时剩余的驻车制动 扭矩* | 8880Nm | 13940Nm |
| 最小的制动器释放压力 | 12bar | 12bar |
| 最大的制动器释放压力 | 30bar | 30bar |
| 油量 | 170cm ³ | 180cm ³ |
| 用于制动器释放的液压油量 | 40cm ³ | 70cm ³ |

● 技术参数 TECHNICAL DATA

| 型号 TYPE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS35-2500 | 2439 | 1220 | 35 | 25 | 9223 | 368 | 0-100 | 97 |
| TMS35-3150 | 3143 | 1572 | 35 | 25 | 11886 | 475 | 0-100 | 97 |
| TMS35-3500 | 3494 | 1747 | 35 | 25 | 13213 | 528 | 0-90 | 97 |
| TMS35-3800 | 3843 | 1922 | 35 | 25 | 14533 | 581 | 0-80 | 97 |
| TMS35-4200 | 4198 | 2099 | 35 | 25 | 15876 | 635 | 0-80 | 97 |

● 输出轴类型 OUTPUT SHAFT VERSION


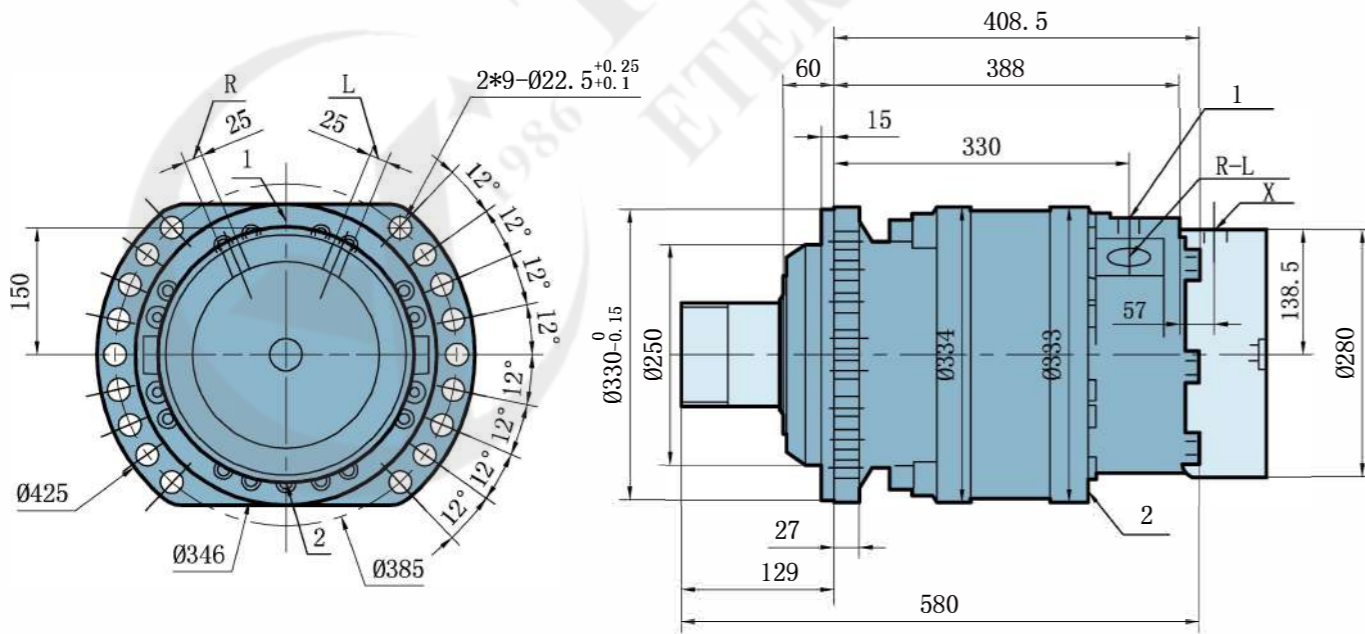
| | A | B | C | D | E | F |
|-----|-------------------------|---|---|---|---|---|
| K40 | DIN 5480 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 120 | | | | | |
| | 模数 Module 5 | | | | | |
| K10 | NF E22-141 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 120 | | | | | |
| | 模数 Module 3.75 | | | | | |



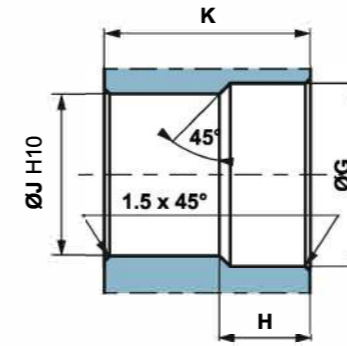
轴马达 SHAFT MOTOR

● 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS35-**-**-F-Y*

| | | |
|--|--------|--------|
| | 188 kg | 248 kg |
| | 5.00 L | 4.00 L |

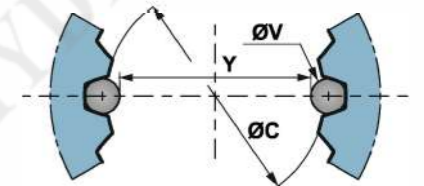
● 花键套联接 SPLINED COUPLING



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)



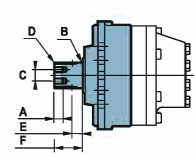
| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|-----|----------|----|----------|-----|-----|------|----|-----------|---------------|----------|---------|----------------------|
| K10 | 121 | 29 | 112.5 | 109 | 120 | 3.75 | 30 | 3 | 112.5 | 7.5 | 105.253 | +104/0 |
| K40 | 122 | 29 | 110 | 109 | 120 | 5 | 22 | 2.25 | 110 | 9 | 101.104 | +87/0 |

● 技术参数 TECHNICAL DATA

| 型号 TYPE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS50-3500 | 3500 | 1750 | 35 | 25 | 13226 | 529 | 0-90 | 110 |
| TMS50-4000 | 4008 | 2004 | 35 | 25 | 15157 | 606 | 0-90 | 110 |
| TMS50-5000 | 4997 | 2499 | 35 | 25 | 18897 | 755 | 0-80 | 110 |
| TMS50-5500 | 5504 | 2752 | 35 | 25 | 20815 | 832 | 0-70 | 110 |
| TMS50-6000 | 6011 | 3006 | 35 | 25 | 22732 | 909 | 0-70 | 110 |

● 输出轴类型 OUTPUT SHAFT VERSION

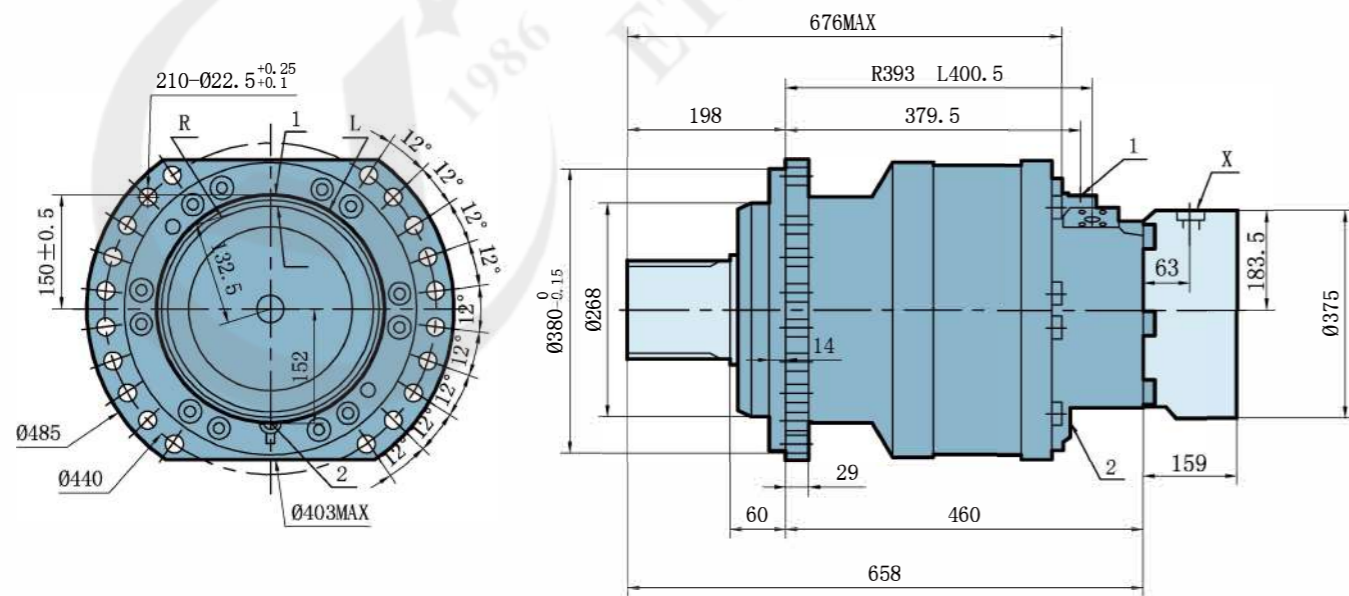
| | A | B | C | D | E | F |
|-----|-------------------------|----|----|---------|----|-----|
| K40 | DIN 5480 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 130 | | | | | |
| | 40 | R4 | 60 | 2 x M16 | 32 | 136 |
| K10 | NF E22-141 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 130 | | | | | |
| | 40 | R4 | 60 | 2 x M16 | 32 | 136 |



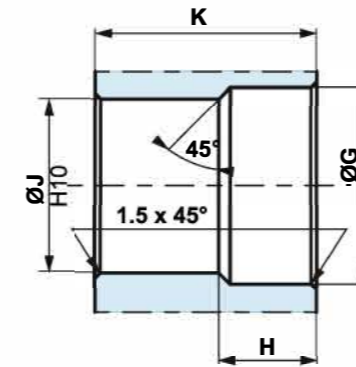
轴马达 SHAFT MOTOR

- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS50-**-**-F-Y*

| | | |
|--|--------|--------|
| | 310 kg | 415 kg |
| | 6,00 L | 4,50 L |
| | | |



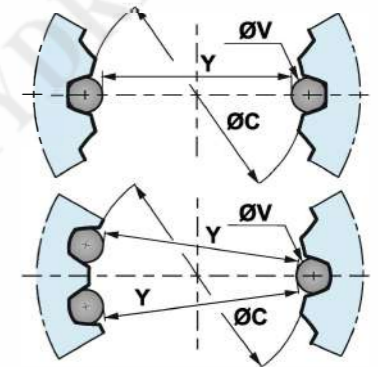
● 花键套联接 SPLINED COUPLING



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

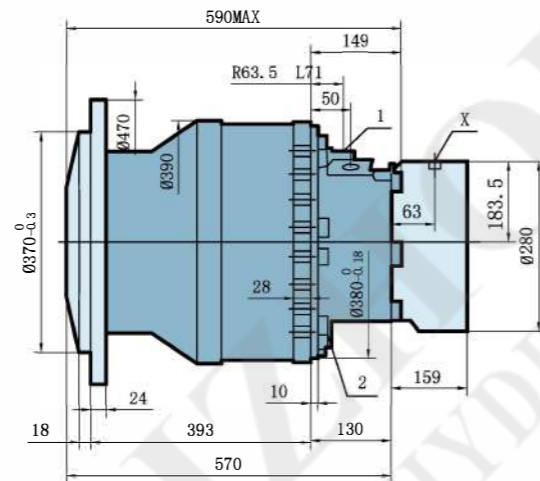
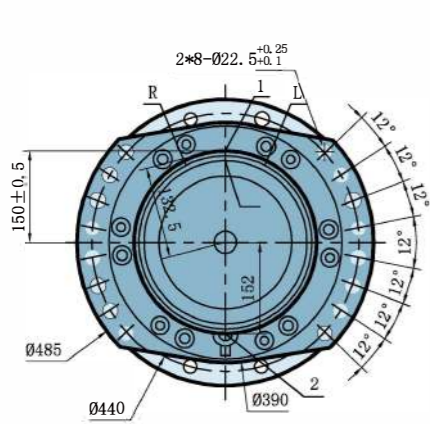


| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|-----|----------|----|----------|-----|-----|------|----|-----------|---------------|----------|---------|----------------------|
| K10 | 132 | 33 | 120 | 135 | 130 | 5 | 24 | 2.25 | 120 | 9 | 111.104 | +87/0 |
| K40 | 131 | 33 | 122.5 | 135 | 130 | 3.75 | 33 | 2.373 | 122.5 | 7.5 | 115.081 | +113/0 |

轮边马达 WHEEL MOTOR

- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS50-**-**-M-Y*

| | | |
|--|--------|--------|
| | 310 kg | 415 kg |
| | 6,00 L | 4,50 L |
| | | |



- 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | N | 轮辋安装 Wheelrim mounting | L | |
|-----|--------|------|------|-----|------|----------|---------------------------|----|--|
| L10 | Φ370 | Φ425 | Φ472 | 393 | Φ390 | Φ26 | 12 × M24 × 2 | 24 | |
| L20 | Φ280.7 | Φ335 | Φ379 | 335 | Φ390 | Φ24 | 10 × M22 × 1.5 | 17 | |
| L30 | Φ280.7 | Φ335 | Φ379 | 296 | Φ390 | 10 × Φ24 | - | 17 | |

- 螺栓 STUDS

| | | P mm | Cmin.mm | Cmax.mm | D mm | | 等级 | | |
|-----------------------|-----------|------|---------|---------|------|--|------|-----|------|
| 各种螺栓 Various studs | M22 × 1.5 | 80 | 5 | 36 | 26 | | 12.9 | 695 | 1050 |
| | M24 × 2 | 95 | - | 38 | 30 | | 12.9 | 910 | 1150 |
| 螺钉 Screws | M20 | - | - | - | - | | 12.9 | 600 | 770 |

- 连接油口 CONNECTIONS

| | 旧标准 Old standard | 标准 Standard | 主油口 Power supply | 壳体泄油口 Case drain | 驻车制动控制油口 Control of parking break |
|---|------------------------|--------------------------|---------------------|---------------------|--------------------------------------|
| | | | R-L | 1.2 | X |
| Y | ISO 6 162 DIN 3 852 | ISO 6 162 ISO 9 974-1 | DN25 PN400 | M22 × 1.5 | M18 × 1.5 |

- 制动器 BRAKES

| | | Z 42 | Z 50 | Z 83 |
|------------------------------------|--|--------------------|--------------------|--------------------|
| 制动腔内压力为0时制动器的制动扭矩 (新制动器) | Parking brake torque at 0 bars on housing(new brake) | 25000Nm | 30000Nm | 42000Nm |
| 制动腔内压力为0时紧急制动扭矩 (最多可作紧急制动使用10次) | Dynamic emery braking torque at 0 bars on housing(max 10 uses of emergency brakes) | 16250Nm | 19500Nm | 27300Nm |
| 制作腔内压力为0时剩余的驻车制动 扭矩* | Residual parking braking at 0 bars on housing | 18750Nm | 22500Nm | 31500Nm |
| 最小的制动器释放压力 | Min,brake release pressure | 12bar | 12bar | 14bar |
| 最大的制动器释放压力 | Max,brake release pressure | 30bar | 30bar | 30bar |
| 油量 | Oil capacity | 400cm ³ | 450cm ³ | 450cm ³ |
| 用于制动器释放的液压油量 | Volume for brake release | 135cm ³ | 135cm ³ | 135cm ³ |

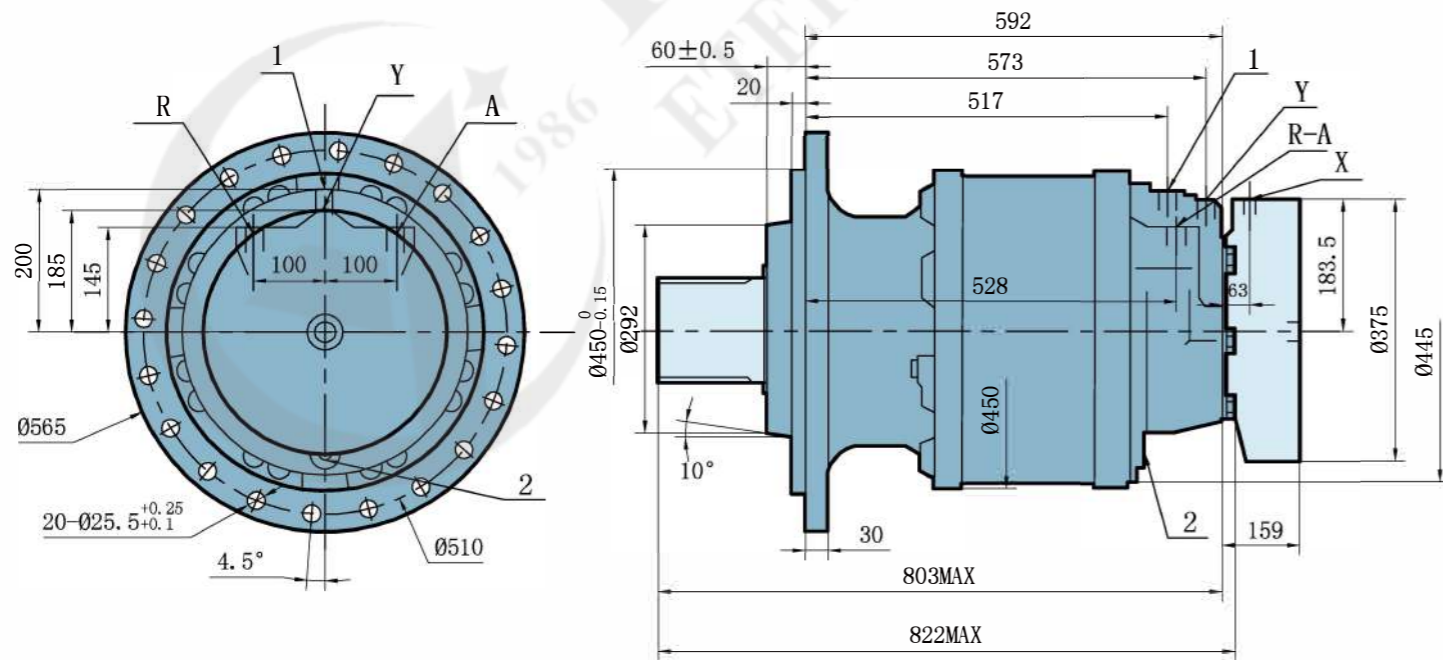
● 技术参数 TECHNICAL DATA

| 型号 TYPE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|-------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS83-6700 | 667 ⁹ | 3340 | 35 | 25 | 25258 | 1010 | 0-65 | 123 |
| TMS83-8300 | 8328 | 4164 | 35 | 25 | 31495 | 1259 | 0-50 | 123 |
| TMS83-10000 | 10019 | 5010 | 35 | 25 | 37890 | 1515 | 0-40 | 123 |

轴马达 SHAFT MOTOR

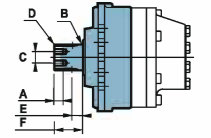
● 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS83-**-**-F-Y*

| | | |
|--|--------|--------|
| | 450 kg | 527 kg |
| | 9.00 L | 7.50 L |
| | | |

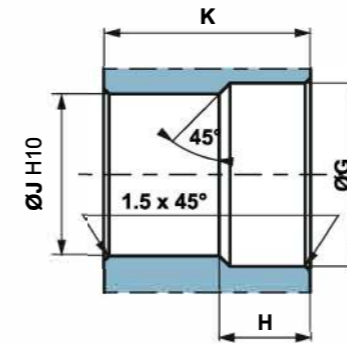


● 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | F |
|-----|-------------------------|----|----|---------|----|-----|
| K40 | DIN 5480 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 150 | | | | | |
| | 40 | R4 | 60 | 2 x M16 | 31 | 150 |
| K10 | NF E22-141 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 150 | | | | | |
| | 40 | R4 | 60 | 2 x M16 | 32 | 150 |



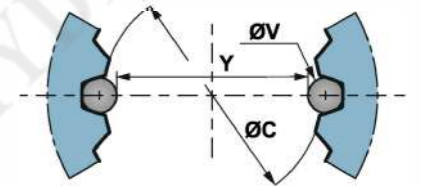
● 花键套联接 SPLINED COUPLINY



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

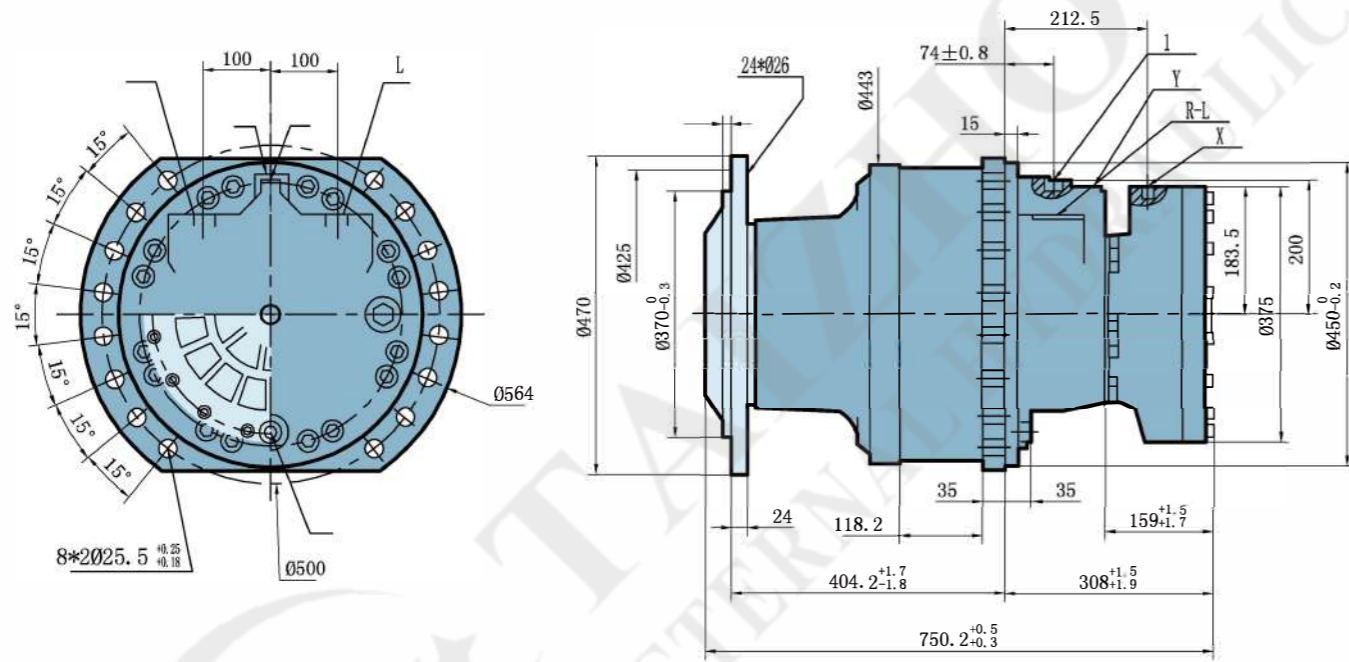


| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|-----|----------|----|----------|-----|-----|------|----|-----------|---------------|----------|---------|----------------------|
| K40 | 152 | 33 | 140 | 149 | 150 | 5 | 28 | 2.25 | 140 | 9 | 131.104 | +87/0 |
| K10 | 151 | 32 | 142.5 | 149 | 150 | 3.75 | 38 | 3 | 142.5 | 7.5 | 135.254 | +104/0 |

轮边马达 WHEEL MOTOR

- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS83-**-**-M-Y*

| | | |
|--|--------|--------|
| | 445 kg | 522 kg |
| | 9.00 L | 7.50 L |
| | | |



- 螺栓 STUDS

| | P mm | Cmin.mm | Cmax.mm | D mm | 等级 | | |
|---------|------|---------|---------|------|------|-----|------|
| | | | | | | N.m | N.m |
| M24 × 5 | 95 | 5 | 39 | 30 | 12.9 | 910 | 1150 |

- 连接油口 CONNECTIONS

| | 标准 Standard | 主油口 Power supply | 壳体泄油口 Case drain | 驻车制动控制油口 Control of parking break |
|---|----------------|---------------------|---------------------|---|
| | | R-L | 1.2 | X |
| Y | ISO 6 162 | DN25 PN400 | M27 × 2 | M18 × 1.5 |

- 制动器 BRAKES

| | | Z 83 |
|------------------------------------|---|--------------------|
| 制动腔内压力为0时制动器的制动扭矩 (新制动器) | Parking brake torque at 0 bars on housing(new brake) | 42000Nm |
| 制动腔内压力为0时紧急制动扭矩 (最多可作紧急制动使用10次) | Dynamic emergy braking torque at 0 bars on housing(max 10 uses of emergency brakes) | 27300Nm |
| 制作腔内压力为0时剩余的驻车制动 扭矩* | Residual parking braking at 0 bars on housing | 31500Nm |
| 最小的制动器释放压力 | Min,brake release pressure | 14bar |
| 最大的制动器释放压力 | Max,brake release pressure | 30bar |
| 油量 | Oil capacity | 450cm ³ |
| 用于制动器释放的液压油量 | Volume for brake release | 135cm ³ |

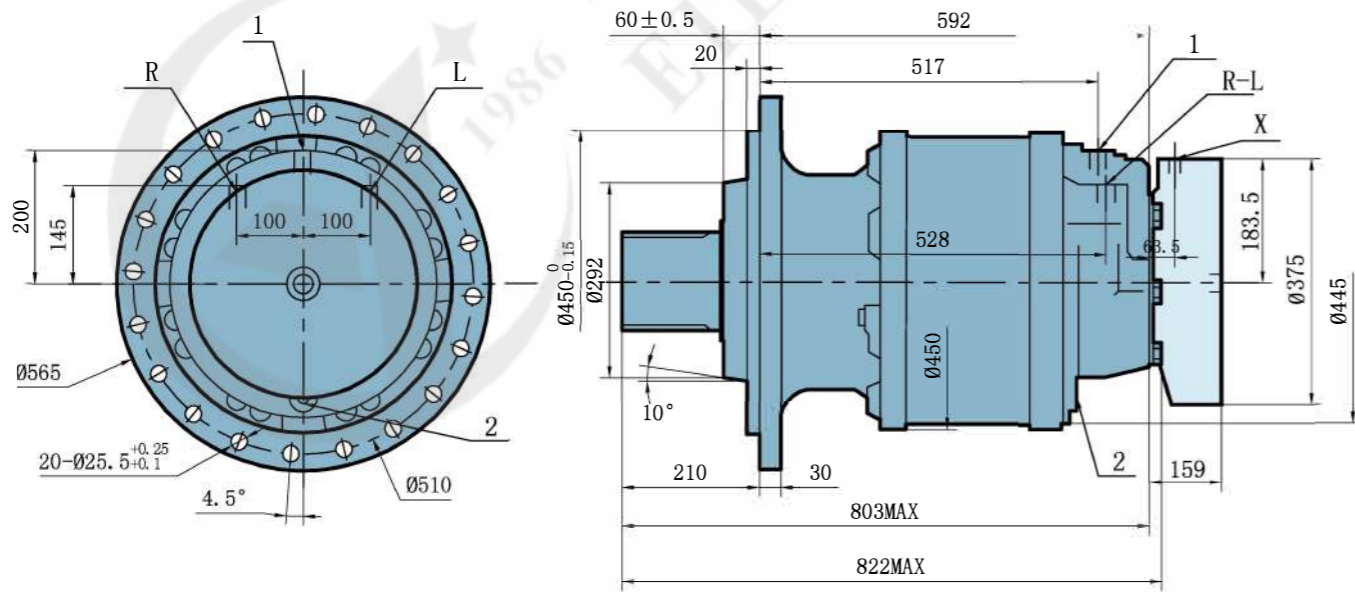
● 技术参数 TECHNICAL DATA

| 型号 TYPE | 排量Displacement (ml/r) | | 压力Pressure (MPa) | | 扭矩Torque(N.m) | | 转速范围 Speed range (r/min) | 最大输出功率 Max cont Power (Kw) |
|--------------|--------------------------|--------------------|-----------------------|-----------------------|------------------------------|---------------------------------------|--------------------------------|----------------------------------|
| | 单速 Single speed | 双速 Double speed | 尖峰压力 Peak pressure | 连续压力 Cont pressure | 额定扭矩 (N.m) Rate torque | 单位理论扭矩 (N.m/MPa) Theoric torque | | |
| TMS125-10000 | 10000 | 5000 | 30 | 25 | 37818 | 1512 | 0-50 | 150 |
| TMS125-12500 | 12500 | 6250 | 30 | 25 | 47273 | 1890 | 0-40 | 150 |
| TMS125-15000 | 15000 | 7500 | 30 | 25 | 56727 | 2269 | 0-30 | 150 |

轴马达 SHAFT MOTOR

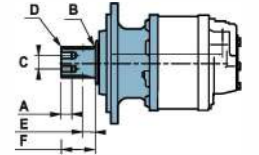
● 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS125-**-**-F-Y*

| | | |
|--|---------|--------|
| | 470 kg | 573 kg |
| | 11,00 L | 9,00 L |

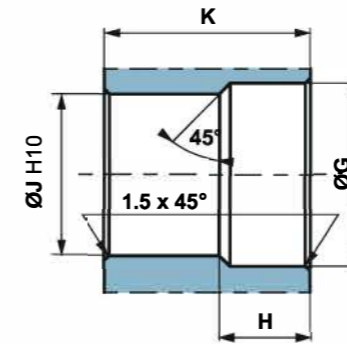


● 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | F |
|-----|-------------------------|----|----|---------|----|-----|
| K40 | DIN 5480 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 150 | | | | | |
| | 40 | R4 | 60 | 2 x M16 | 32 | 150 |
| K10 | NF E22-141 花键 Splines | | | | | |
| | 公称直径 Nominal Φ 150 | | | | | |
| | 40 | R4 | 60 | 2 x M16 | 31 | 150 |



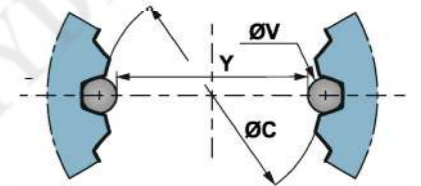
● 花键套联接 SPLINED COUPLINY



N : 公称直径 Φ Nominal Φ
Mo : 模数 Module
Z : 齿数 Number of teeth

标准 DIN 5480 Standard DIN 5480
压力角 30° Pressure angle 30°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

标准 NFE 22-141 Standard NFE 22-141
压力角 20° Pressure angle 20°
齿侧面定位 Centering on flanks
滑动配合 (7H 精度) Slide adjustment (7H quality)

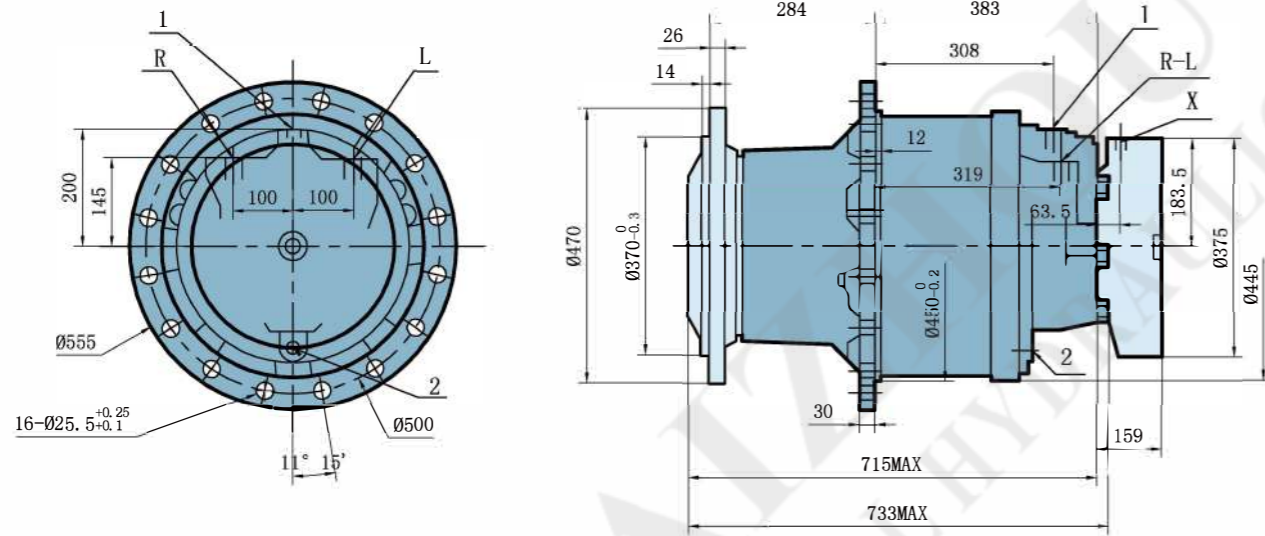


| | Φ G | H | Φ J | K | N | Mo | Z | 偏差 Offset | Φ C(H10) | Φ V | Y | 公差 Tolerance μ m |
|-----|----------|----|----------|-----|-----|------|----|-----------|---------------|----------|---------|----------------------|
| K40 | 152 | 33 | 140 | 149 | 150 | 5 | 28 | 2.25 | 140 | 9 | 131.104 | +87/0 |
| K10 | 151 | 32 | 142.5 | 149 | 150 | 3.75 | 38 | 3 | 142.5 | 7.5 | 135.254 | +104/0 |

轮边马达 WHEEL MOTOR

- 单排量外形安装图 Dimensions for 1 displacement motor
订货代码 Ordering code: TMS125-**-**-M-Y*

| | | |
|--|---------|--------|
| | 460 kg | 563 kg |
| | 11,00 L | 9,00 L |
| | | |



- 输出轴类型 OUTPUT SHAFT VERSION

| | A | B | C | D | E | N | 轮辋安装 Wheelrim mounting | L |
|-----|------|------|------|-----|------|-----|---------------------------|----|
| L10 | Φ370 | Φ425 | Φ470 | 284 | Φ445 | Φ26 | 24 × M24 × 2 | 26 |
| L20 | Φ370 | Φ425 | Φ470 | 239 | Φ445 | Φ26 | 24 × M24 × 2 | 25 |

- 螺栓 STUDS

| | P mm | Cmin.mm | Cmax.mm | D mm | 等级 | (1)* N.m | (2)* N.m | |
|-----------------------|---------|---------|---------|------|----|-------------|-------------|------|
| 各种螺栓 Various studs | M24 × 2 | 95 | 5 | 39 | 30 | 12.9 | 910 | 1150 |
| 螺钉 Screws | M24 × 2 | - | - | - | - | 12.9 | 910 | 1150 |

- 连接油口 CONNECTIONS

| | 旧标准 Old standard | 标准 Standard | 主油口 Power supply | 壳体泄油口 Case drain | 驻车制动控制油口 Control of parking break |
|---|------------------------|--------------------------|---------------------|---------------------|--------------------------------------|
| | | | R-L | 1.2 | X |
| Y | ISO 6 162 DIN 3 852 | ISO 6 162 ISO 9 974-1 | DN25 PN400 | M22 × 1.5 | M18 × 1.5 |

- 制动器 BRAKES

| | F 50 | F 83 | |
|------------------------------------|----------------------------|--------------------|--------------------|
| 制动腔内压力为0时制动器的制动扭矩 (新制动器) | 30000Nm | 42000Nm | |
| 制动腔内压力为0时紧急制动扭矩 (最多可作紧急制动使用10次) | 19500Nm | 27300Nm | |
| 制作腔内压力为0时剩余的驻车制动 扭矩* | 22500Nm | 31500Nm | |
| 最小的制动器释放压力 | Min,brake release pressure | 12bar | 14bar |
| 最大的制动器释放压力 | Max,brake release pressure | 30bar | 30bar |
| 油量 | Oil capacity | 450cm ³ | 450cm ³ |
| 用于制动器释放的液压油量 | Volume for brake release | 135cm ³ | 135cm ³ |