

### 扭力设定 Setting Torque

扭力限制器的设定只需扭紧或放松调整螺栓/或调整螺帽便可，CTL200至CTL350型各具一调整螺帽，CTL500至CTL20型则各具调整螺栓供扭力调整用。

Torque setting of the Torque Limiter is achieved by tightening or loosening the adjustment bolts and/or the adjustment nuts. For torque adjustment of CTL200 to CTL350, an adjustment nut is provided, and for CTL500 to CTL20 adjustment bolts are provided.

扭力限制器在安装至轴上后，即可进行扭力调整，其步骤如下：

The torque setting can be made after mounting the Torque Limiter on the shaft.

CTL200至350型 For CTL 200 to CTL 350 :

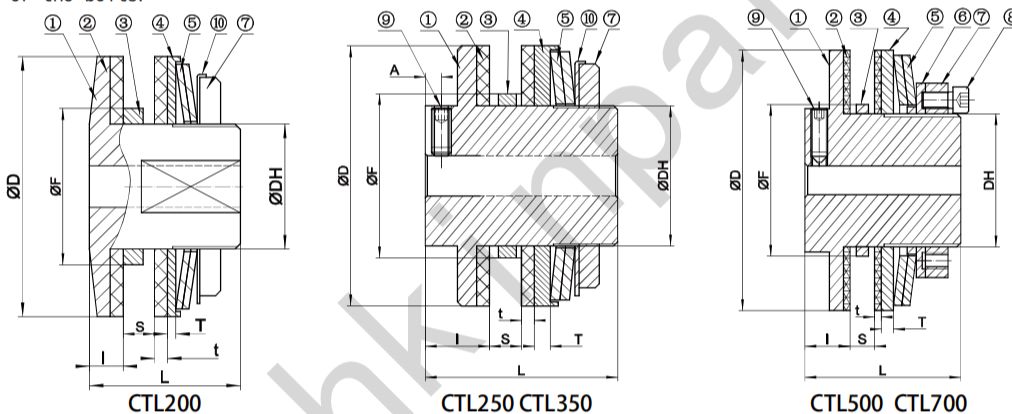
首先，用手以全力转动调整螺帽使碟形弹簧固定至一压板。然后，暂时以一扳钳把螺帽拧紧至60度。

First, rotate the adjustment nut tightly by hand so that the disc spring fits the plate. Then tentatively tighten the nut by about 60 degrees with a wrench.

CTL500至CTL10、14、20型 for CTL500 to CTL10、14、20:

首先，转动一螺帽，把碟形弹簧固定至一压板，再将每一调整螺栓拧紧60度。其次，如于正常情况下扭力限制器仍然滑动，则逐渐拧紧螺帽（CTL200-CTL350型）或螺栓（CTL500-CTL20型），一直到扭力限制器不再滑动。注意，各螺栓之松紧度必须均匀，先试行调整数次以求得相关机器之正确扭力设定，下一页为有效旋转角度和预设扭力关系图可参考。为求精确扭力之调整，宜将本扭力限制器在扭矩调整后把螺帽或螺栓旋转45度，于50-60rpm下试运转500回转。

First, rotate the nut for fixing the disc spring to the plate, and then tighten each adjustment bolt by about 60 degrees. Then, if the Torque Limiter slips under normal loading conditions, tighten the nut (for CTL200 to CTL350) or the bolts (for CTL500 or CTL20) gradually until the torque limiter stops slipping. Always tighten (or loosen) the bolts equally. Try this adjustment several times to find the proper torque setting for the machine. For your guidance, the chart on the next page shows the relation between the effective rotated angle and preset torque. For precise torque setting, run-in of torque limiter is recommended; for example, 500 revolutions at 50 to 60 r/min with a rotated angle of 45 degrees of adjustment nut or the bolts.



The clamping component between Friction Plate No. 2 and Spacer Ring No. 3 can be paired with various types of parts such as:

- Flanges with bolt holes
- Sprockets
- Timing pulleys
- Belt pulleys
- Cams
- Gears
- Work platforms, etc.

- 零件名称  
Name of parts :
- ① : 主体 Hub
  - ② : 摩擦片 Friction facing
  - ③ : 衬环 Bushing
  - ④ : 压板 Pressure Plate
  - ⑤ : 碟形弹簧 Disc Spring
  - ⑥ : 导向压板 Pilot Plate
  - ⑦ : 调节螺母 Adjustment Nut
  - ⑧ : 调节螺栓 Adjustment bolt
  - ⑨ : 锁紧螺钉 Set Screw
  - ⑩ : 止退垫片 Lock washer

尺寸 : (mm)

Dimensions in mm

### CTL200-CTL700尺寸表 Dimensions and Capacity for CTL200-CTL700

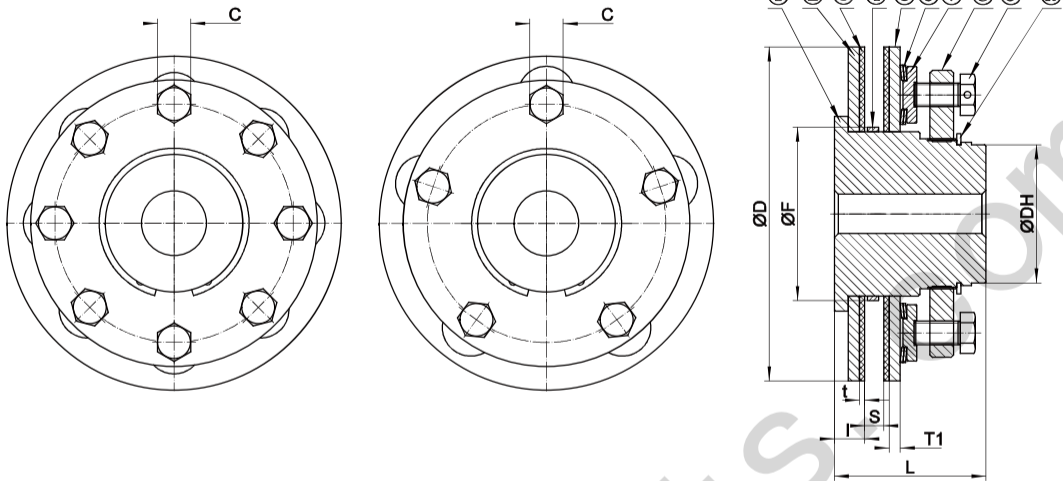
| 型号<br>Model | 扭矩范围<br>Torque Range (Nm) | 最高转速<br>Max. speed unbalanced rpm | 成品内孔<br>Pilot Bore | 最大孔径<br>Max. Bore | 衬环长度<br>Bushing Length | 衬环外径<br>Ø F. of Bushing                 | 中心元件配合孔径<br>Bore for center Member  | D   | DH  | L  | I   | T   | t   | S (max.) | A   | C  | 质量<br>Mass (kg) | 调节螺栓<br>Adjust. Bolt |
|-------------|---------------------------|-----------------------------------|--------------------|-------------------|------------------------|---|-------------------------------------|-----|-----|----|-----|-----|-----|----------|-----|----|-----------------|----------------------|
| CTL200-1    | 2.9~9.8                   | 6600                              | 8                  | 14                | 3.8                    | 30 <sup>-0.020</sup> <sub>-0.041</sub>  | 30 <sup>+0.033</sup> <sub>+0</sub>  | 50  | M24 | 29 | 6.5 | 1.6 | 2.5 | 7        | -   | 36 | 0.26            | -                    |
| CTL200-2    | 6.9~20                    |                                   |                    |                   | 6.0                    |   |                                     |     |     |    |     |     |     |          |     |    |                 |                      |
| CTL250-1    | 6.9~27                    | 6600                              | 10                 | 22                | 4.5                    | 41 <sup>-0.025</sup> <sub>-0.050</sub>  | 41 <sup>+0.039</sup> <sub>+0</sub>  | 65  | M35 | 48 | 16  | 4.0 | 3.2 | 9        | 4   | 50 | 0.74            | -                    |
| CTL250-2    | 14~54                     |                                   |                    |                   | 8.0                    |   |                                     |     |     |    |     |     |     |          |     |    |                 |                      |
| CTL350-1    | 20~74                     | 5600                              | 17                 | 25                | 6.0                    | 49 <sup>-0.025</sup> <sub>-0.050</sub>  | 49 <sup>+0.039</sup> <sub>+0</sub>  | 89  | M42 | 62 | 19  | 4.0 | 3.2 | 16       | 5   | 65 | 2.48            | -                    |
| CTL350-2    | 34~149                    |                                   |                    |                   | 14.5                   |   |                                     |     |     |    |     |     |     |          |     |    |                 |                      |
| CTL500-1    | 47~210                    | 2700                              | 20                 | 42                | 6.0                    | 74 <sup>-0.025</sup> <sub>-0.060</sub>  | 74 <sup>+0.046</sup> <sub>+0</sub>  | 127 | M65 | 76 | 22  | 6.0 | 3.2 | 16       | 6   | -  | 3.85            | M8xP1.0              |
| CTL500-2    | 88~420                    |                                   |                    |                   | 14.5                   |   |                                     |     |     |    |     |     |     |          |     |    |                 | 3 pcs                |
| CTL700-1    | 116~569                   | 2100                              | 30                 | 64                | 8.0                    | 105 <sup>-0.036</sup> <sub>-0.071</sub> | 105 <sup>+0.054</sup> <sub>+0</sub> | 178 | M95 | 98 | 24  | 7.0 | 3.2 | 29       | 6.5 | -  | 9.44            | M10xP1.0             |
| CTL700-2    | 223~1080                  |                                   |                    |                   | 22.0                   |   |                                     |     |     |    |     |     |     |          |     |    |                 | 3 pcs                |

CTL 摩擦式扭矩限制器

TYPE FRICTION OF TORQUE LIMITER

CTL 轴-法兰连接

Shaft-to-ring connection



- 零件名称  
Name of parts:
- ①：主体 Hub
  - ②：压板 Pressure Plate
  - ③：摩擦片 Friction facing
  - ④：衬环 Bushing
  - ⑤：压板 Pressure Plate
  - ⑥：碟形弹簧 Disc Spring
  - ⑦：碟簧压板 Disc spring Plate
  - ⑧：螺母 Adjustment Nut
  - ⑨：调节螺栓 Adjustment Bolt
  - ⑩：轴用挡圈 Snap Ring

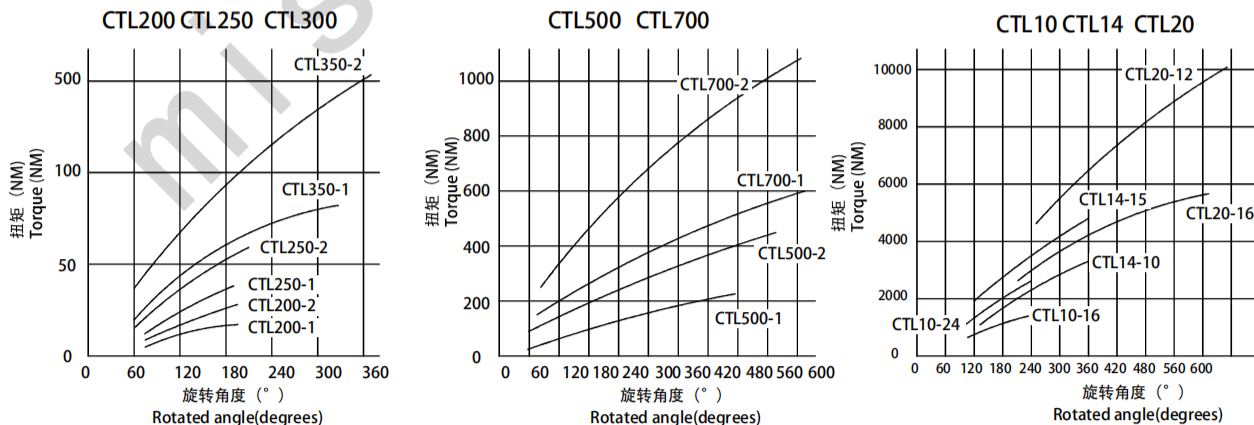
尺寸：(mm)

Dimensions in mm

CTL10-CTL20 尺寸表 Dimensions and Capacity for CTL 10 CTL20

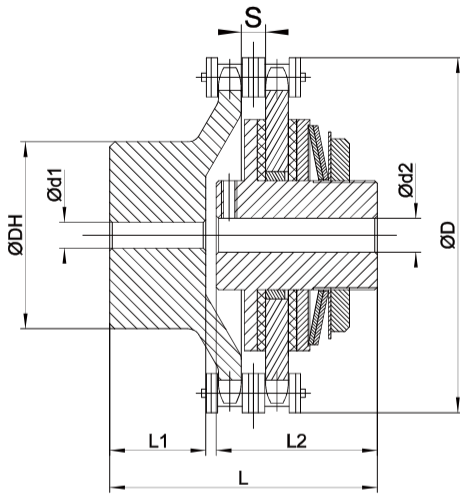
| 型号<br>Model | 扭矩范围<br>Torque Range (Nm) | 最高转速<br>Max. speed<br>unbalance d rpm | 成品内孔<br>Finish<br>h Bore | 最大孔径<br>Max. Bore | 衬环长度<br>Bushing Length | 衬环外径<br>F. of Bushing                   | 中心元件<br>配合孔径<br>Bore for center Member | D   | DH  | L   | l  | T1  | t   | S (max.) | C  | 质量<br>Mass (kg) | 调节螺栓<br>Adjusts bolt |
|-------------|---------------------------|---------------------------------------|--------------------------|-------------------|------------------------|---|--|-----|-----|-----|----|-----|-----|----------|----|-----------------|----------------------|
| CTL10-16    | 400-1240                  | 1400                                  | 30                       | 72                | 12.5                   | 135 <sup>-0.085</sup> <sub>-0.125</sub> | 135 <sup>+0.07</sup> <sub>+0</sub>     | 254 | 100 | 115 | 23 | 8.5 | 4.0 | 24       | 19 | 21              | M18x1.5              |
| CTL10-24    | 590-1860                  |                                       |                          |                   | 19.5                   |   |  |     |     |     |    |     |     |          |    |                 |                      |
| CTL14-10    | 890-2660                  | 1200                                  | 40                       | 100               | 19.5                   | 185 <sup>-0.07</sup> <sub>-0.12</sub>   | 185 <sup>+0.07</sup> <sub>+0</sub>     | 356 | 145 | 150 | 31 | 13  | 6.0 | 29       | 27 | 52              | M26x1.5              |
| CTL14-15    | 1960-3920                 |                                       |                          |                   | 23.5                   |   |  |     |     |     |    |     |     |          |    |                 |                      |
| CTL20-16    | 2450-4900                 | 800                                   | 50                       | 135               | 15.5                   | 226 <sup>-0.07</sup> <sub>-0.12</sub>   | 226 <sup>+0.07</sup> <sub>+0</sub>     | 508 | 185 | 175 | 36 | 15  | 8.0 | 31       | 36 | 117             | M32x1.5              |
| CTL20-12    | 4610-9310                 |                                       |                          |                   | 23.5                   |   |  |     |     |     |    |     |     |          |    |                 |                      |

旋转角度与预设扭力 Rotated angle and setting torque



订货描述示例：  
Order form:

|               |           |                  |                                    |
|---------------|-----------|------------------|------------------------------------|
| CTL350-2-YA25 | CTL350-2  | φ 25             | AB                                 |
| 订货型号          | 规格型号      | 成品孔径             | 键槽按 GB/T3825-1997 (JS9) 标准 8毫米标准键槽 |
|               | Size type | Finish bore (H7) | Key way GB/T3825-1997(JS9) 8mm     |



CTL-C 摩擦式扭矩限制器  
TYPE FRICTION OF TORQUE LIMITER

CTL-C 轴-轴连接  
Shaft-to-Shaft connection



扭力限制型联轴器，具超载后打滑之保护作用，同时也实现了轴—轴传动的可能，米什金扭力限制器型联轴器是滚子链联轴器与扭力限制器的一种完美结合。

The torque limiter coupling combines overload slip protection with the ability to couple driving and driven shafts. It is an assembly consisting of a MISHKIN torque limiter and roller-chain coupling.

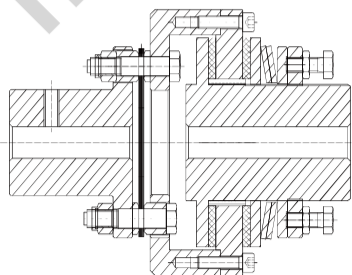
This construction provides a dependable character and easy-to-assemble flexible coupling.

尺寸：(mm)

扭力限制型联轴器的尺寸 Capacity and Dimension of Torque Limiter Coupling

Dimensions in mm

| 型号<br>Model | 扭矩范围<br>Torque Range (Nm) | 最高转速<br>Max. Running Speed (r/min) | φ d2 成型孔径<br>Finish Bore |     | φ d1 φ d2 最大孔径<br>Max. Bore |     | 链轮<br>Sprocket | D   | Dh  | L   | L1  | L2  | S    | 重量<br>Weight (kg) |
|-------------|---------------------------|------------------------------------|--------------------------|-----|-----------------------------|-----|----------------|-----|-----|-----|-----|-----|------|-------------------|
|             |                           |                                    | 链轮<br>Sprocket           | CTL | 链轮<br>Sprocket              | CTL |                |     |     |     |     |     |      |                   |
| CTL200-1C   | 2.9~9.8                   | 1200                               | 8                        | 7   | 31                          | 14  | RS 40-16T      | 76  | 50  | 55  | 24  | 29  | 7.5  | 1.0               |
| CTL200-2C   | 6.9-20                    |                                    |                          |     |                             |     |                |     |     |     |     |     |      |                   |
| CTL250-1C   | 6.9-27                    | 1000                               | 13                       | 10  | 38                          | 22  | RS 40-22T      | 102 | 56  | 76  | 25  | 48  | 7.4  | 1.9               |
| CTL250-2C   | 14-54                     |                                    |                          |     |                             |     |                |     |     |     |     |     |      |                   |
| CTL350-1C   | 20-74                     | 800                                | 13                       | 17  | 45                          | 25  | RS 50-24T      | 137 | 72  | 103 | 37  | 62  | 9.7  | 4.2               |
| CTL350-2C   | 34-149                    |                                    |                          |     |                             |     |                |     |     |     |     |     |      |                   |
| CTL500-1C   | 47-210                    | 500                                | 18                       | 20  | 65                          | 42  | RS 60-28T      | 188 | 105 | 120 | 40  | 76  | 11.6 | 10.0              |
| CTL500-2C   | 88-420                    |                                    |                          |     |                             |     |                |     |     |     |     |     |      |                   |
| CTL700-1C   | 116-569                   | 400                                | 23                       | 30  | 90                          | 64  | RS 80-28T      | 251 | 150 | 168 | 66  | 98  | 15.3 | 26.0              |
| CTL700-2C   | 223-1080                  |                                    |                          |     |                             |     |                |     |     |     |     |     |      |                   |
| CTL10-16C   | 400-1240                  | 300                                | 33                       | 30  | 95                          | 72  | RS 140-22T     | 355 | 137 | 189 | 71  | 115 | 262  | 66.0              |
| CTL10-24C   | 590-1860                  |                                    |                          |     |                             |     |                |     |     |     |     |     |      |                   |
| CTL14-10C   | 890-2660                  | 200                                | 28                       | 40  | 118                         | 100 | RS 160-26T     | 470 | 167 | 235 | 80  | 150 | 30.1 | 140.0             |
| CTL14-15C   | 1960-3920                 |                                    |                          |     |                             |     |                |     |     |     |     |     |      |                   |
| CTL20-16C   | 2450-4900                 | 140                                | 43                       | 50  | 150                         | 135 | RS 160-36T     | 631 | 237 | 300 | 120 | 175 | 30.1 | 285.0             |
| CTL20-12C   | 4610-9310                 |                                    |                          |     |                             |     |                |     |     |     |     |     |      |                   |



- 可和刚性无齿隙钢膜片联轴器组装  
With torsionally rigid, backlash-free steel lamina coupling
- 可适应较高的工作温度 (可达280° c)  
suitable for high operating temperatures up to 280° C
- 有不同长度的中间体适用不同的轴间距  
with variable spacers for different shaft distance dimensions
- 可配套耐油摩擦片，置于油箱内部使用  
Can be equipped with oil resistant friction plate, placed inside oil
- 更多需求

订货描述示例：  
Order form：

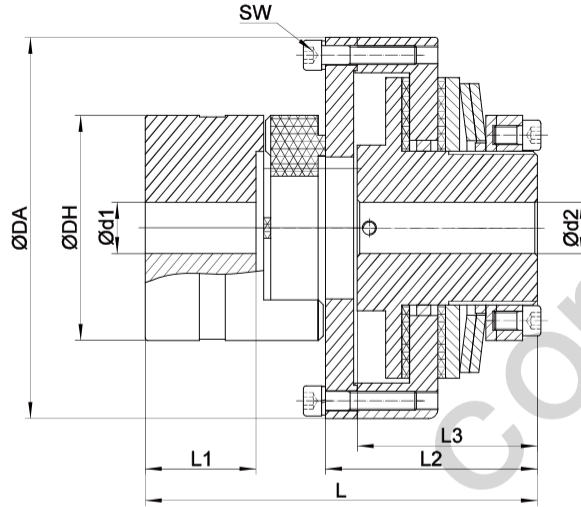
| 规格与型号     | 链轮联轴器孔径 / 米什金扭力限制器孔径 | 国标键槽  |
|-----------|----------------------|---|
| Size/Type | Sprocket H7 / CTL H7 | 成品孔径(H7) 键槽按GB/T3852-1997(JS9)标准                    |
| CTL350-2C | YA28-YA25            | Finish bore (H7) Keyway to GB/T3852 sheet 1997(JS9) |

CTL-XCX 摩擦式扭矩限制器

TYPE FRICTION OF TORQUE LIMITER

CTL-XCX 轴-轴连接

Shaft-to-Shaft connection



轴与轴连接 Shaft-to-shaft-connection

扭向弹性力矩限制器 Torsionally flexible safety clutch 轴向插入, 安装方便 Axial plug-in

能补偿安装偏差 Able to compensate for misalignment

可装在设备上调节打滑力矩 Torque can be set while in place 成品孔径公差按照ISO标准为H7, 键槽宽公差按照标准为JS9  
Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - Js9

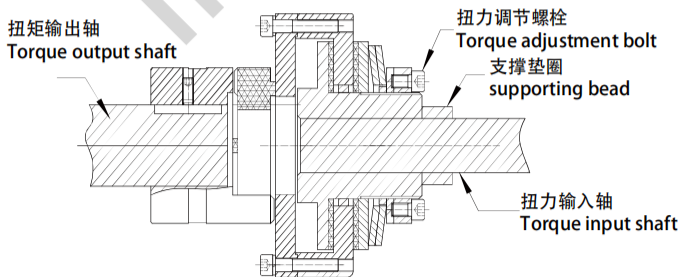
尺寸: (mm)

扭力限制型联轴器的尺寸 Capacity and Dimension of Torque Limiter Coupling

Dimensions in mm

| 型号<br>Model  | 扭矩范围<br>Torque Range (Nm) | 最高转速<br>Max. speed Unbalanced rpm | d1    | d2    | DA  | DH  | L   | Li  | L2  | L3  | SW    |
|--------------|---------------------------|-----------------------------------|-------|-------|-----|-----|-----|-----|-----|-----|-------|
| CTL200-1C1   | 2.9-9.8                   | 1800                              | 6-19  | 8-14  | 70  | 40  | 77  | 25  | 36  | 29  | 6-M4  |
| CTL200-2C1   | 6.9-20                    |                                   |       |       |     |     |     |     |     |     |       |
| CTL250-1C2   | 6.9-27                    | 1800                              | 8-24  | 10-22 | 87  | 55  | 106 | 30  | 58  | 48  | 6-M5  |
| CTL250-2C2   | 14-54                     |                                   |       |       |     |     |     |     |     |     |       |
| CTL350-1C3   | 20-74                     | 1800                              | 10-28 | 17-25 | 118 | 65  | 129 | 35  | 74  | 62  | 6-M6  |
| CTL350-2C3   | 34-149                    |                                   |       |       |     |     |     |     |     |     |       |
| CTL500-1C5   | 47-210                    | 1800                              | 14-42 | 20-42 | 158 | 95  | 166 | 50  | 90  | 76  | 8-M8  |
| CTL500-2C5   | 88-420                    |                                   |       |       |     |     |     |     |     |     |       |
| CTL700-1C8   | 116-569                   | 1400                              | 22-65 | 30-64 | 216 | 135 | 225 | 75  | 115 | 98  | 8-M10 |
| CTL700-2C8   | 223-1080                  |                                   |       |       |     |     |     |     |     |     |       |
| CTL1016-1C10 | 400-1240                  | 1400                              | 40-90 | 30-72 | 300 | 200 | 284 | 100 | 139 | 115 | 8-M12 |
| CTL1024-2C10 | 590-1860                  |                                   |       |       |     |     |     |     |     |     |       |

常见安装发生方式 Common ways of installation



带中间轴联轴器

as intermediate shaft coupling

适合较大的轴间距离

for large shaft distance dimensions

可和钢膜片联轴器组装

available in combination with or steel lamina couplings

可配套耐油摩擦片, 置于油箱内部使用

Can be equipped with oil resistant friction plate, placed inside oil

更多需求

订货描述示例:  
Order form:

| 规格与型号      | 星型联轴器孔径 / 米什金扭力限制器孔径          | 国标键槽   |
|------------|-------------------------------|--|
| Size/Type  | flexible coupling H7 / CTL H7 | 成品孔径(H7) 键槽按GB/T3852-1997(JS9)标准                     |
| CTL350-2C2 | YA28-YA25                     | Finish bore (H7) Keyway to GB/T3852 sheet 1997 (JS9) |