

ServoFit® PH 行星齿轮减速器

ServoFit® PH Planetary Gear Units



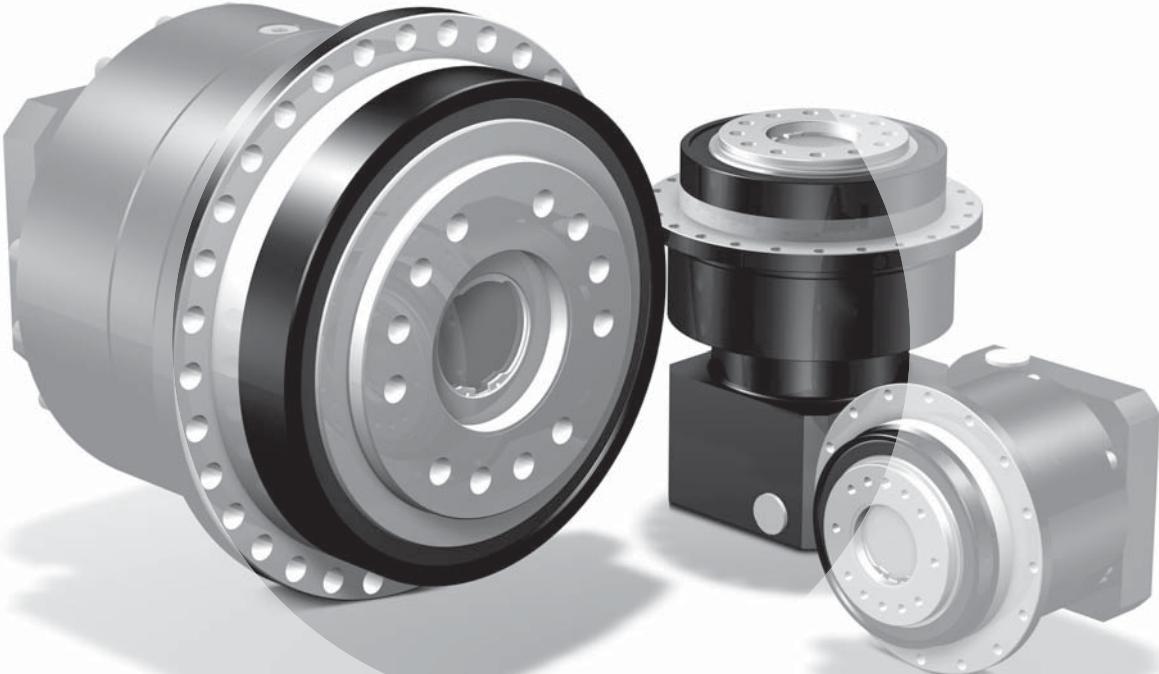
高精度 精密行星齿轮减速器

- 加速扭矩:
50 – 7500 Nm
- 低齿隙:
3 arcmin (PH3 = 4 arcmin)
- 超高的扭转和侧倾刚度
- 油量恒定,
每种安装位置都适用
- 输入端 FKM 密封,
无冷却连续运转
- 夹紧毂的传导功能
使安装简便
- 先进的传动技术
- 低转动惯量
- 易于连接任何伺服电机
- 静音运转
- 效率:
1 级 ≥ 96 %
2 级 ≥ 93 %

High Performance Precision Planetary Gear Units

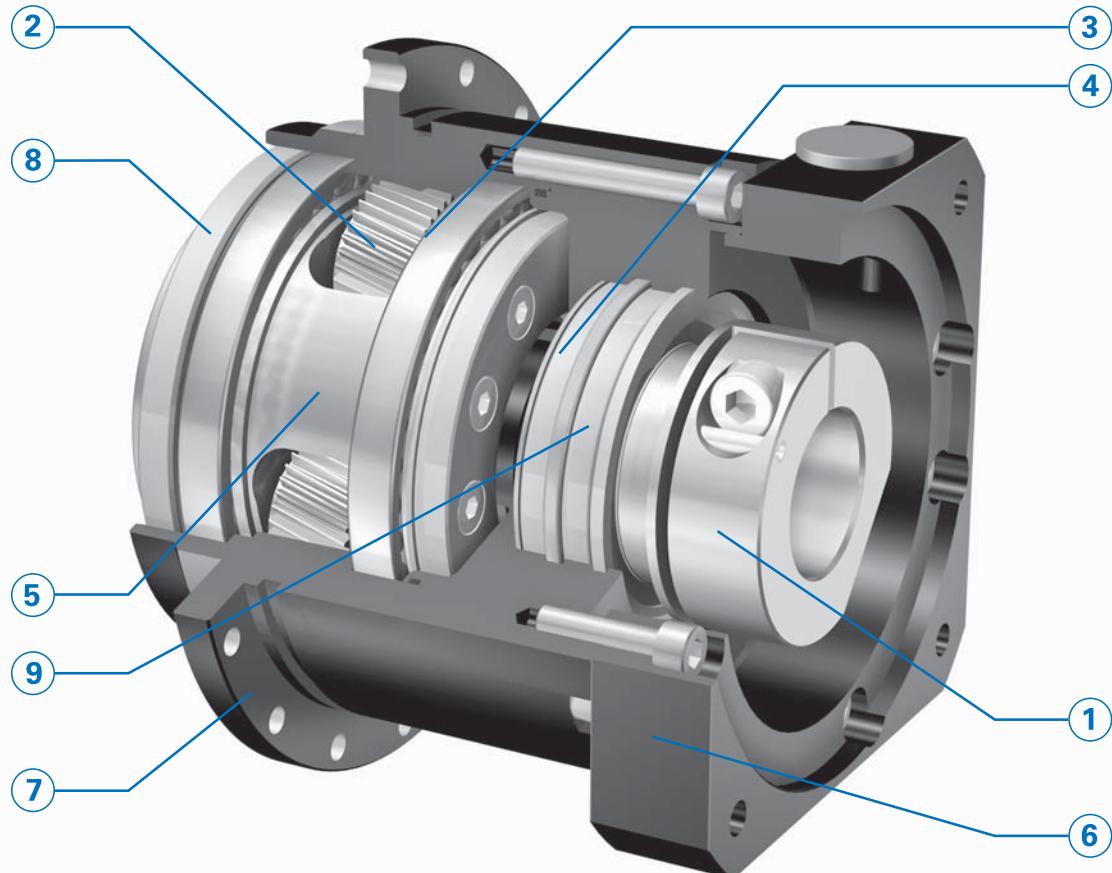
- Acceleration torque:
50 – 7500 Nm
- Low backlash:
3 arcmin (PH3 = 4 arcmin)
- extremely high torsional and
tilting stiffness
- consistent oil quantity, suitable
for every mounting position
- FKM seal at input, continuous
operation without cooling
- easy to assemble due to spread-
ing function in the clamping hub
- advanced gear technology
- low mass moments of inertia
- readily attaches any
servo motor
- quiet running
- efficiency:
1 stage ≥ 96 %
2 stage ≥ 93 %

ServoFit® PH



ServoFit® PH 行星齿轮减速器

ServoFit® PH Planetary Gear Units



- 经过验证的斜齿传动技术和优化后的基本几何结构，使其达到最高的运转平稳度。

手中积累的经验在过去几十年一貫付诸实践。齿轮齿的基本几何结构主要因此被优化，以确保最高的齿隙稳定性和极端安静的齿轮运转。

- 主要轴承对称分布，法兰轴可容许高强度载荷并拥有巨大的侧倾刚度。

成 O 形排列的预紧角接触轴承已成为标准版本，适用于高轴向推力和径向负荷。

- 无需特殊工具，**斯德博 EasyAdapt® 电机适配器系统**让电机的安装变得轻松准确，可在几分钟内完成作业。

- **选择范围宽松的 IEC 和 NEMA 电机适配器**几乎适用于所有品牌的电机。

- **Highest running smoothness achieved by proven helical gearing and optimized microgeometry.**

On-hands experience gained over the past decades has consistently been put to practice. This has resulted mainly in optimized gear tooth microgeometry, ensuring highest backlash stability and extremely quiet gear operation.

- **Symmetrically arranged main bearings** for highest load capacity and highest tilting rigidity of the flange shaft. Due to pretensioned angular bearings in O alignment already the standard version is suitable for **high axial thrust and radial loads**

- The **STÖBER EasyAdapt® motor adapter system** allows easy and accurate motor installation in minutes with no special tools required.

- **Wide selection** of IEC and NEMA motor adapters for all common brands of motors.

ServoFit® PH 行星齿轮减速器

ServoFit® PH Planetary Gear Units



① EasyAdapt® 联轴器

精准的电机安装由紧固螺栓完成。还有用于**大规格电机轴直径**的设计。

一体化设计并优化部件以适应电机轴径，此举有助于**惯量最小化**，同时确保出众的动态性能。

平衡的夹紧联轴节确保高速时也能安静、无振动运转。

轴套用于适应用户的电机轴径。

② 高品质传动由经过表面硬化处理和精磨的太阳轮和行星轮提供。

③ 行星齿轮的轴承容许负载增加了约100%。

④ 防护等级 IP65。使用 FKM 油封在尽可能最小的轴径处密封，减小摩擦，从而防止内部热量的堆积，增加效率。无需外部冷却即可持续运转。

⑤ 最高抗扭刚度和极限抗拉强度由高抗拉材料制成的一体化行星架提供。

⑥ 铝合金制成的电机适配器特别适合**低重量减速器**。

⑦ 一体化箱体设计确保**最高的运转精度**。箱体材料：高强度回火钢。

⑧ NBR 径向双唇油封。FKM 油封做为**可选项**，适用于连续运转，具有非常好的化学稳定性。

⑨ 输入轴带罩轴承以及耐高温油脂，特别适合免维护运转。

⑩ 使用高质量防水合成齿轮油保证**终生润滑**。

① EasyAdapt® coupling

Accurate and precise motor installation by clamping screw. Designed for **large motor shaft diameters**.

The single-piece design and optimized features to accommodate the motor shaft diameter help **minimize inertia** and ensure superior dynamic performance.

The **balanced** clamp coupling ensures quiet, vibration-free operation, also at high speeds.

Spacer bushes to accommodate custom motor shaft diameters.

② **High gearing quality** provided by case-hardened and finish-ground sun gear and planet gears.

③ **Load capacity of the planet gear bearings** increased by about 100%.

④ **IP65** enclosure. Sealed with a **FKM** radial oil seal for the smallest possible shaft diameter. Reduces friction, thus preventing internal heat build-up. Increases efficiency. **Continuous duty** operation possible without addition cooling.

⑤ **Highest torsional stiffness and ultimate tensile strength** provided by oversized single-piece planet carriers made of high-tensile material.

⑥ Motor adapter made of aluminium for **low gear unit weight**.

⑦ **Highest running accuracy and precision** ensured by single-piece housing design. Housing material: High-tensile tempered steel.

⑧ **NBR double-lip radial oil seals**. For continuous duty applications, with very good chemical resistance **FKM oil seals** are available as an **option**.

⑨ Input shaft bearings with shields and high-temperature grease for maintenance-free operation.

⑩ **Lubricated for life** with high-quality hydrophobic synthetic gear oil.

ServoFit® PHV 行星齿轮减速器

ServoFit® PHV Planetary Gear Units



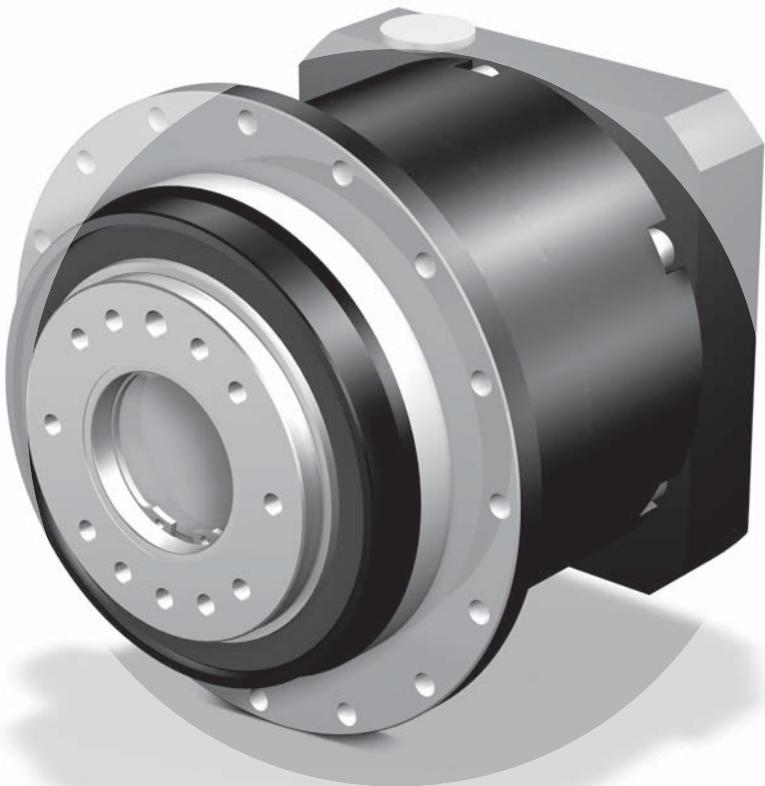
高性能，高精度 行星齿轮减速器

- 加速扭矩：
PHV933: 4250 Nm
PHV1033: 7500 Nm
- 低齿隙：
3 arcmin
- 高速比 (> 60)，设计紧凑，力量分散的多级传动齿轮
- 油量恒定，
每种安装位置都适用
- 超高的扭转和侧倾刚度
- 输入端 FKM 密封，
无冷却连续运转
- 夹紧毂的传导功能
使安装简便
- 先进的传动技术
- 低转动惯量
- 易于连接任何伺服电机
- 静音运转
- 效率：≥ 90 %

High Performance Precision Planetary Gear Units

- Acceleration torque:
PHV933: 4250 Nm
PHV1033: 7500 Nm
- Low backlash:
3 arcmin
- High ratios (> 60) in compact design
with power-branched transmission
gear steps
- consistent oil quantity, suitable
for every mounting position
- extremely high torsional and
tilting stiffness
- FKM seal at input, continuous opera-
tion without cooling
- easy to assemble due to spreading
function in the clamping hub
- advanced gear technology
- low mass moments of inertia
- readily attaches any servo motor
- quiet running
- efficiency: ≥ 90 %

ServoFit® PHV





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型号标识

Type designation

 STÖBER

PH 4 2 1 F 0050 ME C

1 减速器类型

- PH - 行星齿轮减速器
- PHV - 行星齿轮减速器

2 减速器规格

3 生产代号

4 齿轮级数

- 1 - 1 级
- 2 - 2 级
- 3 - 3 级

5 结构

- F - 法兰轴

6 传动比 $i \times 10$

7 电机适配器

- ME - 带有 EasyAdapt® 联轴器的电机适配器
- MEL - 带有 EasyAdapt® 联轴器和大规格电机法兰盘的电机适配器
按需定制（需要客户的电机尺寸图！
还请参阅电机输出图与 PH17 页的电机连接图，并注意最大尺寸）。
- MB - 带制动的电机适配器
(可选) (见手册 ID 441904)

8 冷却模块

- C - ServoCool (可选)
(见手册 ID 441851)

订货数据依照以上型号标识。

更多订货细节：

- 关于输出端径向密封材料，是使用 FKM 抑或 NBR？
建议：FKM 适用于运转时间 $\geq 60\%$
- 如果是水平安装，输出轴的回转运行是否在 ± 20 到 ± 90 度之间？
(也可参见 A12 页)

警告！ 为确保达到标定的扭矩，齿轮箱装配到机械上的螺栓必须是 12.9 级。

1 Gear unit type

- PH - Planetary gear unit
- PHV - Planetary gear unit

2 Gear unit size

3 Generation number

4 Stages

- 1 - 1 stage
- 2 - 2 stage
- 3 - 3 stage

5 Design

- F - flange shaft

6 Transmission ratio $i \times 10$

7 Mounting series

- ME - Motor adapter with EasyAdapt® coupling
- MEL - Motor adapter with EasyAdapt® coupling and large motor plate
Acc. to customer specs (Dimension drawing of customer motor necessary! Also see pic. motor output and motor connection from page PH17, please observe the max. dimensions).
- MB - Motor adapter square with brake (option) (see brochure ID 441904)

8 Ventilator module

- C - ServoCool (option)
(see brochure ID 441851)

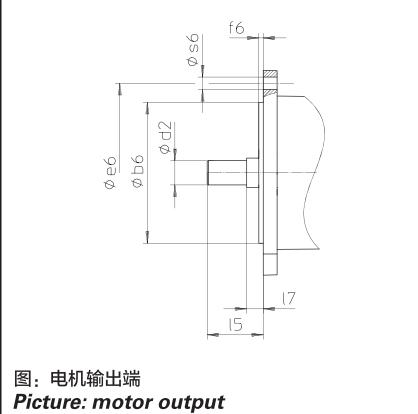
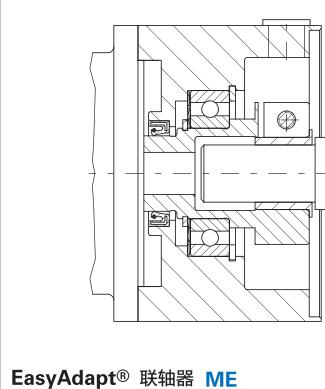
Ordering data according to the type designation above.

Further ordering details:

- information as to whether the radial shaft seals on the output are made from FKM or NBR. Recommendation: FKM for an operating time $\geq 60\%$ reversing operation of the output shaft ± 20 to ± 90 degrees (horizontal mounting) ? (also see page A12)

WARNING! In order to ensure that the specified torques are attained it is essential to attach the gear units at the machine with screws of grade 12.9.

PH421 F 0050 ME



轴系 / 箱体设计

PH + PHV 输出轴

ISO 9409 (PH3 - PH8)

Shaft / housing design

Output PH + PHV

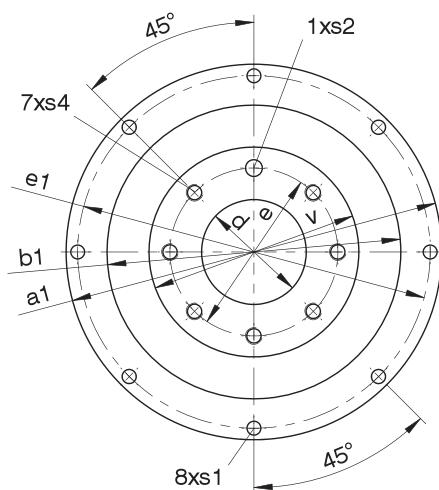
ISO 9409 (PH3 - PH8)



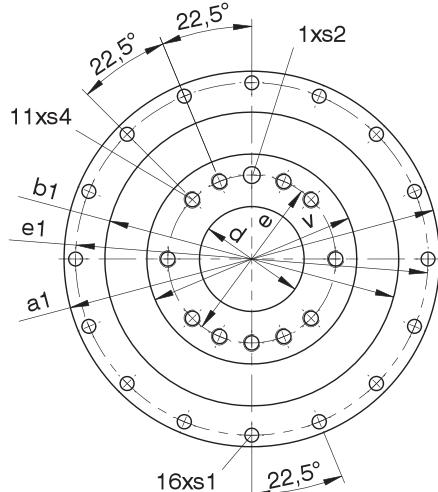
法兰轴

Flange shaft

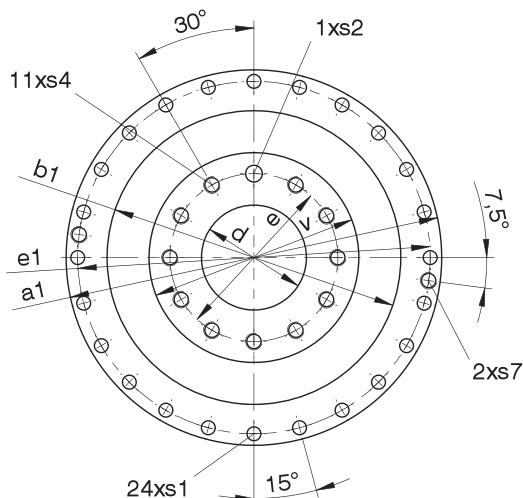
PH3 + PH4



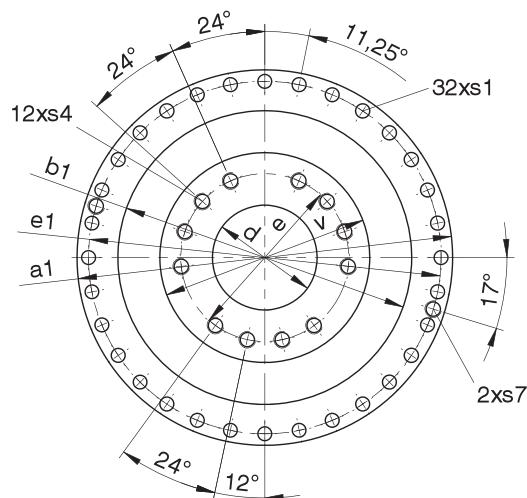
PH5



PH7 + PH8



PH9 + PH10
PHV9 + PHV10



轴系设计 "F"

Shaft design "F"

Typ	$\varnothing a1$	$\varnothing b1$	$\varnothing d$	$\varnothing e$	$\varnothing e1$	$\varnothing s1$	$\varnothing s2$	s4	s7	v
PH3	86h7	64h7	20,0H6	31,5	79	4,5	5H7	M5	-	40h7
PH4	118h7	90h7	31,5H6	50,0	109	5,5	6H7	M6	-	63h7
PH5	145h7	110h7	40,0H6	63,0	135	5,5	6H7	M6	-	80h7
PH7	179h7	140h7	50,0H6	80,0	168	6,6	8H7	M8	-	100h7
PH8	247h7	200h7	80,0H6	125,0	233	9,0	10H7	M10	M10	160h7
PH9/PHV9	300	255h7	90,0H6	140,0	280	13,5	-	M16	M8	180h7
PH10/PHV10	330	285h7	95,0H6	160,0	310	13,5	-	M20	M10	200h7

警告！为确保达到标定的扭矩，齿轮箱装配到机械上的螺栓必须是 12.9 级。

WARNING! In order to ensure that the specified torques are attained it is essential to attach the gear units at the machine with screws of grade 12.9.

备注

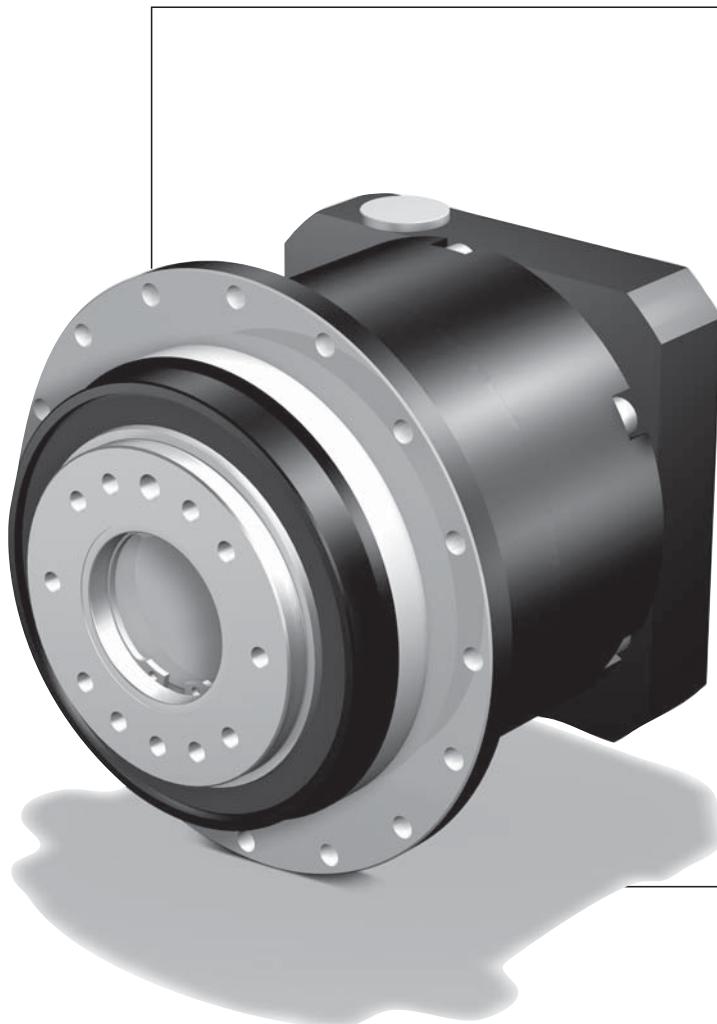
Notes



选型数据：
ServoFit® PH
行星齿轮减速器

Selection data:
ServoFit® PH
Planetary Gear Units

 STÖBER



PH

**选型数据：
ServoFit® PH
行星齿轮减速器**

*Selection data:
ServoFit® PH
Planetary Gear Units*



符号：

- i - 减速器传动比
n_{1MAX} - 最大输入转速
DB - 连续运转
ZB - 间歇运转
(环境温度 20°C, 还请参阅 A10/A11 页)
MWØ - 电机轴径
J₁ - 质量惯性矩 (针对输入端)
G - 重量
Δφ₂ - 齿隙
C₂ - 齿轮箱刚度
(针对 M_{2N} 时的输出端)
L_{PA} - 最大噪音水平 (n₁ = 2000 rpm)
M_{2N} - 额定扭矩¹⁾
M_{2B} - 最大容许加速扭矩
M_{2NOT} - 紧急制动扭矩
(1000 次负载变化)

请注意 A10/A11 页的运转系数！

1) 所列数值适用于输入转速 n₁=1500 rpm。

产品构成的容许扭矩 M_{2N} 和所容许的转速 n_{1MAXDB}
不考虑最大热容量。

Symbols:

- i* - Gear unit ratio
n_{1MAX} - Max. input speed
DB - Continuous operation
ZB - Cycle operation
(at ambient temperature 20°C, also
see page A10/A11)
MWØ - Motor shaft diameter
J₁ - Mass mom. of inertia (related to input)
G - Weight
Δφ₂ - Backlash
C₂ - Gear unit rigidity
(related to output at M_{2N})
L_{PA} - Max. noise level (n₁ = 2000 rpm)
M_{2N} - Rated torque 1)
M_{2B} - Max. perm. acceleration torque
M_{2NOT} - Emergency-Off moment
(10³ load changes)

**Please take notice of the operating factors
on page A10/A11 !**

1) Figures applied to input speed n₁ = 1500 rpm.

The product consisting of permissible torque M_{2N} and
permissible speed n_{1MAXDB} does not consider the
maximum thermal capacity.

行星齿轮减速器 PH

Planetary Gear Units PH



请注意 PH6 页的符号注释!

Please take notice of the indications on page PH6!

i	Typ	n1MAX DB [min-1]	n1MAX ZB [min-1]	MWØ [mm]	J1 [10 ⁻⁴ kgm ²]	G [kg]	Δφ2 [arcmin]	C2 [Nm/arcmin]	LPA [dB(A)]	M2N [Nm]	M2B [Nm]	M2NOT [Nm]
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PH321 (M2BMAX=65 Nm)

5,000	PH321F0050 ME	3000	6000	≤11	0,30	1,4	4	14	58	45	65	110
5,000	PH321F0050 ME	3000	6000	>11≤14	0,34	1,4	4	14	58	45	65	130
5,000	PH321F0050 ME	3000	6000	>14≤19	0,45	1,4	4	14	58	45	65	130
5,000	PH321F0050 MEL	3000	6000	>19≤24	0,94	2,3	4	15	58	45	65	130
7,000	PH321F0070 ME	3500	6000	≤11	0,27	1,4	4	13	57	45	60	130
7,000	PH321F0070 ME	3500	6000	>11≤14	0,30	1,4	4	13	57	45	60	130
7,000	PH321F0070 ME	3500	6000	>14≤19	0,42	1,4	4	13	57	45	60	130
7,000	PH321F0070 MEL	3500	6000	>19≤24	0,90	2,3	4	14	57	45	60	130
10,00	PH321F0100 ME	3800	6000	≤11	0,25	1,4	4	11	55	30	50	100
10,00	PH321F0100 ME	3800	6000	>11≤14	0,28	1,4	4	11	55	30	50	100
10,00	PH321F0100 ME	3800	6000	>14≤19	0,40	1,4	4	11	55	30	50	100
10,00	PH321F0100 MEL	3800	6000	>19≤24	0,88	2,3	4	11	55	30	50	100

PH322 (M2BMAX=65 Nm)

20,00	PH322F0200 ME	4500	8000	≤9	0,11	1,7	4	15	59	45	65	130
20,00	PH322F0200 ME	4500	8000	>9≤11	0,12	1,7	4	15	59	45	65	130
20,00	PH322F0200 ME	4500	8000	>11≤14	0,14	1,7	4	15	59	45	65	130
20,00	PH322F0200 MEL	4500	8000	>14≤19	0,43	2,1	4	15	59	45	65	130
25,00	PH322F0250 ME	4500	8000	≤9	0,09	1,7	4	15	57	45	65	130
25,00	PH322F0250 ME	4500	8000	>9≤11	0,10	1,7	4	15	57	45	65	130
25,00	PH322F0250 ME	4500	8000	>11≤14	0,12	1,7	4	15	57	45	65	130
25,00	PH322F0250 MEL	4500	8000	>14≤19	0,41	2,1	4	15	57	45	65	130
28,00	PH322F0280 ME	4500	8000	≤9	0,10	1,7	4	15	59	45	60	130
28,00	PH322F0280 ME	4500	8000	>9≤11	0,12	1,7	4	15	59	45	60	130
28,00	PH322F0280 ME	4500	8000	>11≤14	0,14	1,7	4	15	59	45	60	130
28,00	PH322F0280 MEL	4500	8000	>14≤19	0,42	2,1	4	15	59	45	60	130
35,00	PH322F0350 ME	4500	8000	≤9	0,08	1,7	4	15	56	45	65	130
35,00	PH322F0350 ME	4500	8000	>9≤11	0,09	1,7	4	15	56	45	65	130
35,00	PH322F0350 ME	4500	8000	>11≤14	0,11	1,7	4	15	56	45	65	130
35,00	PH322F0350 MEL	4500	8000	>14≤19	0,40	2,1	4	15	56	45	65	130
40,00	PH322F0400 ME	4500	8000	≤9	0,10	1,7	4	12	59	30	50	100
40,00	PH322F0400 ME	4500	8000	>9≤11	0,11	1,7	4	12	59	30	50	100
40,00	PH322F0400 ME	4500	8000	>11≤14	0,14	1,7	4	12	59	30	50	100
40,00	PH322F0400 MEL	4500	8000	>14≤19	0,42	2,1	4	12	59	30	50	100
50,00	PH322F0500 ME	4500	8000	≤9	0,07	1,7	4	14	54	45	65	130
50,00	PH322F0500 ME	4500	8000	>9≤11	0,08	1,7	4	14	54	45	65	130
50,00	PH322F0500 ME	4500	8000	>11≤14	0,10	1,7	4	14	54	45	65	130
50,00	PH322F0500 MEL	4500	8000	>14≤19	0,39	2,1	4	14	54	45	65	130
70,00	PH322F0700 ME	4500	8000	≤9	0,07	1,7	4	15	54	45	60	130
70,00	PH322F0700 ME	4500	8000	>9≤11	0,08	1,7	4	15	54	45	60	130
70,00	PH322F0700 ME	4500	8000	>11≤14	0,10	1,7	4	15	54	45	60	130
70,00	PH322F0700 MEL	4500	8000	>14≤19	0,39	2,1	4	15	54	45	60	130
100,0	PH322F1000 ME	4500	8000	≤9	0,07	1,7	4	12	54	30	50	100
100,0	PH322F1000 ME	4500	8000	>9≤11	0,08	1,7	4	12	54	30	50	100
100,0	PH322F1000 ME	4500	8000	>11≤14	0,10	1,7	4	12	54	30	50	100
100,0	PH322F1000 MEL	4500	8000	>14≤19	0,39	2,1	4	12	54	30	50	100

行星齿轮减速器 PH

Planetary Gear Units **PH**



请注意 PH6 页的符号注释!

Please take notice of the indications on page PH6!

i	Typ	n1MAX DB [min-1]	n1MAX ZB [min-1]	MWØ [mm]	J1 [10 ⁻⁴ kgm ²]	G [kg]	Δφ2 [arcmin]	C2 [Nm/arcmin]	LPA [dB(A)]	M2N [Nm]	M2B [Nm]	M2NOT [Nm]
PH421 (M2BMAX=130 Nm)												
4,000	PH421F0040 ME	2300	5000	≤14	1,1	3,9	3	32	61	90	130	190
4,000	PH421F0040 ME	2300	5000	>14≤19	1,2	3,9	3	33	61	90	130	240
4,000	PH421F0040 ME	2300	5000	>19≤24	1,4	3,9	3	33	61	90	130	240
4,000	PH421F0040 MEL	2300	5000	>24≤32	3,0	4,6	3	35	61	90	130	240
5,000	PH421F0050 ME	2700	6000	≤14	0,91	3,9	3	33	59	90	130	240
5,000	PH421F0050 ME	2700	6000	>14≤19	1,1	3,9	3	33	59	90	130	240
5,000	PH421F0050 ME	2700	6000	>19≤24	1,2	3,9	3	33	59	90	130	240
5,000	PH421F0050 MEL	2700	6000	>24≤32	2,8	4,6	3	35	59	90	130	240
7,000	PH421F0070 ME	3200	6000	≤14	0,76	3,9	3	29	58	90	110	240
7,000	PH421F0070 ME	3200	6000	>14≤19	0,89	3,9	3	29	58	90	110	240
7,000	PH421F0070 ME	3200	6000	>19≤24	1,0	3,9	3	29	58	90	110	240
7,000	PH421F0070 MEL	3200	6000	>24≤32	2,6	4,6	3	30	58	90	110	240
10,00	PH421F0100 ME	3500	6000	≤14	0,68	3,9	3	21	56	60	100	200
10,00	PH421F0100 ME	3500	6000	>14≤19	0,81	3,9	3	21	56	60	100	200
10,00	PH421F0100 ME	3500	6000	>19≤24	0,93	3,9	3	21	56	60	100	200
10,00	PH421F0100 MEL	3500	6000	>24≤32	2,6	4,6	3	21	56	60	100	200
PH422 (M2BMAX=130 Nm)												
16,00	PH422F0160 ME	3700	6500	≤11	0,38	4,5	3	26	60	90	130	240
16,00	PH422F0160 ME	3700	6500	>11≤14	0,42	4,5	3	26	60	90	130	240
16,00	PH422F0160 ME	3700	6500	>14≤19	0,53	4,5	3	26	60	90	130	240
16,00	PH422F0160 MEL	3700	6500	>19≤24	1,0	5,2	3	27	60	90	130	240
20,00	PH422F0200 ME	3700	6500	≤11	0,37	4,5	3	28	60	90	130	240
20,00	PH422F0200 ME	3700	6500	>11≤14	0,40	4,5	3	28	60	90	130	240
20,00	PH422F0200 ME	3700	6500	>14≤19	0,52	4,5	3	28	60	90	130	240
20,00	PH422F0200 MEL	3700	6500	>19≤24	1,0	5,2	3	29	60	90	130	240
25,00	PH422F0250 ME	4000	7000	≤11	0,32	4,5	3	28	58	90	130	240
25,00	PH422F0250 ME	4000	7000	>11≤14	0,35	4,5	3	28	58	90	130	240
25,00	PH422F0250 ME	4000	7000	>14≤19	0,47	4,5	3	28	58	90	130	240
25,00	PH422F0250 MEL	4000	7000	>19≤24	0,96	5,2	3	29	58	90	130	240
28,00	PH422F0280 ME	4500	8000	≤11	0,28	4,5	3	25	57	90	130	240
28,00	PH422F0280 ME	4500	8000	>11≤14	0,31	4,5	3	25	57	90	130	240
28,00	PH422F0280 ME	4500	8000	>14≤19	0,43	4,5	3	25	57	90	130	240
28,00	PH422F0280 MEL	4500	8000	>19≤24	0,91	5,2	3	25	57	90	130	240
35,00	PH422F0350 ME	4500	8000	≤11	0,27	4,5	3	28	57	90	130	240
35,00	PH422F0350 ME	4500	8000	>11≤14	0,31	4,5	3	28	57	90	130	240
35,00	PH422F0350 ME	4500	8000	>14≤19	0,42	4,5	3	28	57	90	130	240
35,00	PH422F0350 MEL	4500	8000	>19≤24	0,91	5,2	3	28	57	90	130	240
40,00	PH422F0400 ME	4500	8000	≤11	0,26	4,5	3	24	55	90	130	240
40,00	PH422F0400 ME	4500	8000	>11≤14	0,29	4,5	3	24	55	90	130	240
40,00	PH422F0400 ME	4500	8000	>14≤19	0,40	4,5	3	24	55	90	130	240
40,00	PH422F0400 MEL	4500	8000	>19≤24	0,89	5,2	3	24	55	90	130	240
50,00	PH422F0500 ME	4500	8000	≤11	0,25	4,5	3	27	55	90	130	240
50,00	PH422F0500 ME	4500	8000	>11≤14	0,29	4,5	3	27	55	90	130	240
50,00	PH422F0500 ME	4500	8000	>14≤19	0,40	4,5	3	27	55	90	130	240
50,00	PH422F0500 MEL	4500	8000	>19≤24	0,89	5,2	3	27	55	90	130	240
70,00	PH422F0700 ME	4500	8000	≤11	0,25	4,5	3	27	55	90	110	240
70,00	PH422F0700 ME	4500	8000	>11≤14	0,28	4,5	3	27	55	90	110	240
70,00	PH422F0700 ME	4500	8000	>14≤19	0,40	4,5	3	27	55	90	110	240
70,00	PH422F0700 MEL	4500	8000	>19≤24	0,89	5,2	3	27	55	90	110	240
100,0	PH422F1000 ME	4500	8000	≤11	0,25	4,5	3	20	55	60	100	200
100,0	PH422F1000 ME	4500	8000	>11≤14	0,28	4,5	3	20	55	60	100	200
100,0	PH422F1000 ME	4500	8000	>14≤19	0,40	4,5	3	20	55	60	100	200
100,0	PH422F1000 MEL	4500	8000	>19≤24	0,89	5,2	3	20	55	60	100	200

行星齿轮减速器 PH

Planetary Gear Units PH



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i	Typ	n1MAX DB [min ⁻¹]	n1MAX ZB [min ⁻¹]	MWØ [mm]	J1 [10 ⁻⁴ kgm ²]	G [kg]	Δφ2 [arcmin]	C2 [Nm/arcmin]	LPA [dB(A)]	M2N [Nm]	M2B [Nm]	M2NOT [Nm]
PH521 (M2BMAX=320 Nm)												
4,000	PH521F0040 ME	2200	5000	≤19	3,5	6,6	3	73	62	210	270	340
4,000	PH521F0040 ME	2200	5000	>19≤24	3,8	6,6	3	77	62	210	320	600
4,000	PH521F0040 ME	2200	5000	>24≤32	4,0	6,6	3	77	62	210	320	600
4,000	PH521F0040 MEL	2200	5000	>32≤38	7,9	8,3	3	85	62	210	320	600
5,000	PH521F0050 ME	2500	5500	≤19	2,9	6,6	3	77	60	220	320	430
5,000	PH521F0050 ME	2500	5500	>19≤24	3,2	6,6	3	80	60	220	320	600
5,000	PH521F0050 ME	2500	5500	>24≤32	3,5	6,6	3	80	60	220	320	600
5,000	PH521F0050 MEL	2500	5500	>32≤38	7,3	8,3	3	85	60	220	320	600
7,000	PH521F0070 ME	3000	6000	≤19	2,4	6,6	3	71	59	210	270	600
7,000	PH521F0070 ME	3000	6000	>19≤24	2,7	6,6	3	71	59	210	270	600
7,000	PH521F0070 ME	3000	6000	>24≤32	3,1	6,6	3	71	59	210	270	600
7,000	PH521F0070 MEL	3000	6000	>32≤38	6,8	8,3	3	73	59	210	270	600
10,00	PH521F0100 ME	3300	6000	≤19	2,1	6,6	3	53	57	140	250	500
10,00	PH521F0100 ME	3300	6000	>19≤24	2,4	6,6	3	53	57	140	250	500
10,00	PH521F0100 ME	3300	6000	>24≤32	2,8	6,6	3	53	57	140	250	500
10,00	PH521F0100 MEL	3300	6000	>32≤38	6,5	8,3	3	54	57	140	250	500
PH522 (M2BMAX=320 Nm)												
16,00	PH522F0160 ME	3300	6000	≤14	0,89	8,1	3	63	61	210	320	600
16,00	PH522F0160 ME	3300	6000	>14≤19	1,0	8,1	3	64	61	210	320	600
16,00	PH522F0160 ME	3300	6000	>19≤24	1,2	8,1	3	64	61	210	320	600
16,00	PH522F0160 MEL	3300	6000	>24≤32	2,8	8,8	3	64	61	210	320	600
20,00	PH522F0200 ME	3300	6000	≤14	0,94	8,1	3	70	61	220	320	600
20,00	PH522F0200 ME	3300	6000	>14≤19	1,1	8,1	3	70	61	220	320	600
20,00	PH522F0200 ME	3300	6000	>19≤24	1,2	8,1	3	70	61	220	320	600
20,00	PH522F0200 MEL	3300	6000	>24≤32	2,8	8,8	3	70	61	220	320	600
25,00	PH522F0250 ME	3700	6500	≤14	0,82	8,1	3	70	59	220	320	600
25,00	PH522F0250 ME	3700	6500	>14≤19	0,98	8,1	3	70	59	220	320	600
25,00	PH522F0250 ME	3700	6500	>19≤24	1,1	8,1	3	70	59	220	320	600
25,00	PH522F0250 MEL	3700	6500	>24≤32	2,8	8,8	3	70	59	220	320	600
28,00	PH522F0280 ME	4000	7000	≤14	0,69	8,1	3	61	58	210	320	600
28,00	PH522F0280 ME	4000	7000	>14≤19	0,83	8,1	3	61	58	210	320	600
28,00	PH522F0280 ME	4000	7000	>19≤24	0,94	8,1	3	61	58	210	320	600
28,00	PH522F0280 MEL	4000	7000	>24≤32	2,6	8,8	3	61	58	210	320	600
35,00	PH522F0350 ME	4000	7000	≤14	0,71	8,1	3	68	58	220	320	600
35,00	PH522F0350 ME	4000	7000	>14≤19	0,84	8,1	3	68	58	220	320	600
35,00	PH522F0350 ME	4000	7000	>19≤24	0,96	8,1	3	68	58	220	320	600
35,00	PH522F0350 MEL	4000	7000	>24≤32	2,6	8,8	3	68	58	220	320	600
40,00	PH522F0400 ME	4000	7000	≤14	0,65	8,1	3	58	56	210	320	600
40,00	PH522F0400 ME	4000	7000	>14≤19	0,78	8,1	3	58	56	210	320	600
40,00	PH522F0400 ME	4000	7000	>19≤24	0,90	8,1	3	58	56	210	320	600
40,00	PH522F0400 MEL	4000	7000	>24≤32	2,5	8,8	3	58	56	210	320	600
50,00	PH522F0500 ME	4000	7000	≤14	0,66	8,1	3	66	56	220	320	600
50,00	PH522F0500 ME	4000	7000	>14≤19	0,79	8,1	3	66	56	220	320	600
50,00	PH522F0500 ME	4000	7000	>19≤24	0,91	8,1	3	66	56	220	320	600
50,00	PH522F0500 MEL	4000	7000	>24≤32	2,5	8,8	3	66	56	220	320	600
70,00	PH522F0700 ME	4000	7000	≤14	0,65	8,1	3	65	56	210	270	600
70,00	PH522F0700 ME	4000	7000	>14≤19	0,79	8,1	3	65	56	210	270	600
70,00	PH522F0700 MEL	4000	7000	>19≤24	0,90	8,1	3	65	56	210	270	600
70,00	PH522F0700 MEL	4000	7000	>24≤32	2,5	8,8	3	66	56	210	270	600
100,0	PH522F1000 ME	4000	7000	≤14	0,65	8,1	3	52	56	140	250	500
100,0	PH522F1000 ME	4000	7000	>14≤19	0,78	8,1	3	52	56	140	250	500
100,0	PH522F1000 ME	4000	7000	>19≤24	0,90	8,1	3	52	56	140	250	500
100,0	PH522F1000 MEL	4000	7000	>24≤32	2,5	8,8	3	52	56	140	250	500

行星齿轮减速器 PH

Planetary Gear Units **PH**



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i	Typ	n1MAX DB [min-1]	n1MAX ZB [min-1]	MWØ [mm]	J1 [10 ⁻⁴ kgm ²]	G	Δφ2 [arcmin]	C2 [Nm/arcmin]	LPA [dB(A)]	M2N [Nm]	M2B [Nm]	M2NOT [Nm]
PH721 (M2BMAX=700 Nm)												
4,000	PH721F0040 ME	1900	4000	≤24	7,6	12,3	3	136	63	440	570	710
4,000	PH721F0040 ME	1900	4000	>24≤32	8,5	12,3	3	144	63	440	700	1330
4,000	PH721F0040 ME	1900	4000	>32≤38	9,4	12,3	3	144	63	440	700	1370
4,000	PH721F0040 MEL	1900	4000	>38≤48	21	16,1	3	160	63	440	700	1370
5,000	PH721F0050 ME	2200	5000	≤24	5,7	12,3	3	150	61	440	700	890
5,000	PH721F0050 ME	2200	5000	>24≤32	6,7	12,3	3	155	61	440	700	1400
5,000	PH721F0050 ME	2200	5000	>32≤38	7,5	12,3	3	155	61	440	700	1400
5,000	PH721F0050 MEL	2200	5000	>38≤48	19	16,1	3	167	61	440	700	1400
7,000	PH721F0070 ME	2500	5000	≤24	4,3	12,3	3	145	60	440	650	1240
7,000	PH721F0070 ME	2500	5000	>24≤32	6,4	12,3	3	145	60	440	650	1240
7,000	PH721F0070 ME	2500	5000	>32≤38	7,8	12,3	3	145	60	440	650	1240
7,000	PH721F0070 MEL	2500	5000	>38≤48	17	16,1	3	152	60	440	650	1240
10,00	PH721F0100 ME	3000	5000	≤24	3,6	12,3	3	113	58	300	500	1000
10,00	PH721F0100 ME	3000	5000	>24≤32	5,8	12,3	3	113	58	300	500	1000
10,00	PH721F0100 ME	3000	5000	>32≤38	7,1	12,3	3	113	58	300	500	1000
10,00	PH721F0100 MEL	3000	5000	>38≤48	17	16,1	3	115	58	300	500	1000
PH722 (M2BMAX=700 Nm)												
16,00	PH722F0160 ME	3000	5000	≤19	3,1	14,6	3	132	62	440	700	1330
16,00	PH722F0160 ME	3000	5000	>19≤24	3,5	14,6	3	133	62	440	700	1370
16,00	PH722F0160 ME	3000	5000	>24≤32	3,8	14,6	3	133	62	440	700	1370
16,00	PH722F0160 MEL	3000	5000	>32≤38	7,5	16,3	3	134	62	440	700	1370
20,00	PH722F0200 ME	3000	5000	≤19	3,0	14,6	3	147	62	440	700	1400
20,00	PH722F0200 ME	3000	5000	>19≤24	3,3	14,6	3	147	62	440	700	1400
20,00	PH722F0200 ME	3000	5000	>24≤32	3,7	14,6	3	147	62	440	700	1400
20,00	PH722F0200 MEL	3000	5000	>32≤38	7,4	16,3	3	148	62	440	700	1400
25,00	PH722F0250 ME	3500	6000	≤19	2,6	14,6	3	147	60	440	700	1400
25,00	PH722F0250 ME	3500	6000	>19≤24	2,9	14,6	3	147	60	440	700	1400
25,00	PH722F0250 ME	3500	6000	>24≤32	3,2	14,6	3	147	60	440	700	1400
25,00	PH722F0250 MEL	3500	6000	>32≤38	7,0	16,3	3	148	60	440	700	1400
28,00	PH722F0280 ME	3700	6500	≤19	2,3	14,6	3	130	59	440	700	1370
28,00	PH722F0280 ME	3700	6500	>19≤24	2,6	14,6	3	130	59	440	700	1370
28,00	PH722F0280 ME	3700	6500	>24≤32	2,9	14,6	3	130	59	440	700	1370
28,00	PH722F0280 MEL	3700	6500	>32≤38	6,6	16,3	3	130	59	440	700	1370
35,00	PH722F0350 ME	3700	6500	≤19	2,2	14,6	3	145	59	440	700	1400
35,00	PH722F0350 ME	3700	6500	>19≤24	2,5	14,6	3	145	59	440	700	1400
35,00	PH722F0350 ME	3700	6500	>24≤32	2,8	14,6	3	145	59	440	700	1400
35,00	PH722F0350 MEL	3700	6500	>32≤38	6,6	16,3	3	145	59	440	700	1400
40,00	PH722F0400 ME	3700	6500	≤19	2,1	14,6	3	126	57	440	700	1370
40,00	PH722F0400 ME	3700	6500	>19≤24	2,4	14,6	3	126	57	440	700	1370
40,00	PH722F0400 ME	3700	6500	>24≤32	2,7	14,6	3	126	57	440	700	1370
40,00	PH722F0400 MEL	3700	6500	>32≤38	6,5	16,3	3	126	57	440	700	1370
50,00	PH722F0500 ME	3700	6500	≤19	2,1	14,6	3	142	57	440	700	1400
50,00	PH722F0500 ME	3700	6500	>19≤24	2,4	14,6	3	142	57	440	700	1400
50,00	PH722F0500 ME	3700	6500	>24≤32	2,7	14,6	3	142	57	440	700	1400
50,00	PH722F0500 MEL	3700	6500	>32≤38	6,4	16,3	3	142	57	440	700	1400
70,00	PH722F0700 ME	3700	6500	≤19	2,1	14,6	3	141	57	440	650	1240
70,00	PH722F0700 ME	3700	6500	>19≤24	2,3	14,6	3	141	57	440	650	1240
70,00	PH722F0700 MEL	3700	6500	>24≤32	2,7	14,6	3	141	57	440	650	1240
70,00	PH722F0700 MEL	3700	6500	>32≤38	6,4	16,3	3	141	57	440	650	1240
100,0	PH722F1000 ME	3700	6500	≤19	2,0	14,6	3	112	57	300	500	1000
100,0	PH722F1000 ME	3700	6500	>19≤24	2,3	14,6	3	112	57	300	500	1000
100,0	PH722F1000 MEL	3700	6500	>24≤32	2,6	14,6	3	112	57	300	500	1000
100,0	PH722F1000 MEL	3700	6500	>32≤38	6,4	16,3	3	112	57	300	500	1000

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i	Typ	n1MAX DB [min-1]	n1MAX ZB [min-1]	MWØ [mm]	J1 [10 ⁻⁴ kgm ²]	G [kg]	Δφ2 [arcmin]	C2 [Nm/arcmin]	LPA [dB(A)]	M2N [Nm]	M2B [Nm]	M2NOT [Nm]
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PH821 (M2BMAX=1700 Nm)

4,000	PH821F0040 ME	1500	3500	≤32	33	34,6	3	389	64	880	1270	1590
4,000	PH821F0040 ME	1500	3500	>32≤38	36	34,6	3	413	64	880	1600	2310
4,000	PH821F0040 ME	1500	3500	>38≤48	41	34,6	3	413	64	880	1600	2310
5,000	PH821F0050 ME	1700	4000	≤32	24	34,6	3	416	62	1100	1590	1990
5,000	PH821F0050 ME	1700	4000	>32≤38	27	34,6	3	433	62	1100	1700	2870
5,000	PH821F0050 ME	1700	4000	>38≤48	32	34,6	3	433	62	1100	1700	2870
7,000	PH821F0070 ME	2000	4000	≤32	17	34,6	3	411	61	1000	1600	2770
7,000	PH821F0070 ME	2000	4000	>32≤38	21	34,6	3	411	61	1000	1600	2770
7,000	PH821F0070 ME	2000	4000	>38≤48	23	34,6	3	411	61	1000	1600	2770
10,00	PH821F0100 ME	2500	4000	≤32	13	34,6	3	302	59	800	1200	2400
10,00	PH821F0100 ME	2500	4000	>32≤38	17	34,6	3	302	59	800	1200	2400
10,00	PH821F0100 ME	2500	4000	>38≤48	19	34,6	3	302	59	800	1200	2400

PH822 (M2BMAX=2000 Nm)

16,00	PH822F0160 ME	2500	4500	≤24	7,5	39,8	3	428	63	1100	2000	2760
16,00	PH822F0160 ME	2500	4500	>24≤32	8,5	39,8	3	433	63	1100	2000	3150
16,00	PH822F0160 ME	2500	4500	>32≤38	11	39,8	3	433	63	1100	2000	3150
16,00	PH822F0160 MEL	2500	4500	>38≤48	21	43,6	3	441	63	1100	2000	3150
20,00	PH822F0200 ME	2500	4500	≤24	6,9	39,8	3	444	63	1250	2000	3200
20,00	PH822F0200 ME	2500	4500	>24≤32	7,9	39,8	3	447	63	1250	2000	3200
20,00	PH822F0200 ME	2500	4500	>32≤38	10	39,8	3	447	63	1250	2000	3200
20,00	PH822F0200 MEL	2500	4500	>38≤48	20	43,6	3	452	63	1250	2000	3200
25,00	PH822F0250 ME	3000	5500	≤24	5,4	39,8	3	473	61	1250	2000	3200
25,00	PH822F0250 ME	3000	5500	>24≤32	6,4	39,8	3	475	61	1250	2000	3200
25,00	PH822F0250 ME	3000	5500	>32≤38	9,0	39,8	3	475	61	1250	2000	3200
25,00	PH822F0250 MEL	3000	5500	>38≤48	19	43,6	3	479	61	1250	2000	3200
28,00	PH822F0280 ME	3300	6000	≤24	4,3	39,8	3	427	60	1100	2000	3150
28,00	PH822F0280 ME	3300	6000	>24≤32	6,2	39,8	3	427	60	1100	2000	3150
28,00	PH822F0280 ME	3300	6000	>32≤38	6,2	39,8	3	427	60	1100	2000	3150
28,00	PH822F0280 MEL	3300	6000	>38≤48	17	43,6	3	431	60	1100	2000	3150
35,00	PH822F0350 ME	3300	6000	≤24	4,2	39,8	3	443	60	1250	2000	3200
35,00	PH822F0350 ME	3300	6000	>24≤32	6,0	39,8	3	443	60	1250	2000	3200
35,00	PH822F0350 ME	3300	6000	>32≤38	6,0	39,8	3	443	60	1250	2000	3200
35,00	PH822F0350 MEL	3300	6000	>38≤48	17	43,6	3	446	60	1250	2000	3200
40,00	PH822F0400 ME	3300	6000	≤24	3,6	39,8	3	414	58	1100	1920	3150
40,00	PH822F0400 ME	3300	6000	>24≤32	5,5	39,8	3	414	58	1100	1920	3150
40,00	PH822F0400 ME	3300	6000	>32≤38	5,5	39,8	3	414	58	1100	1920	3150
40,00	PH822F0400 MEL	3300	6000	>38≤48	17	43,6	3	416	58	1100	1920	3150
50,00	PH822F0500 ME	3300	6000	≤24	3,5	39,8	3	434	58	1250	2000	3200
50,00	PH822F0500 ME	3300	6000	>24≤32	5,4	39,8	3	434	58	1250	2000	3200
50,00	PH822F0500 MEL	3300	6000	>32≤38	5,4	39,8	3	434	58	1250	2000	3200
50,00	PH822F0500 MEL	3300	6000	>38≤48	17	43,6	3	435	58	1250	2000	3200
70,00	PH822F0700 ME	3300	6000	≤24	3,5	39,8	3	420	58	1000	1600	2770
70,00	PH822F0700 ME	3300	6000	>24≤32	5,3	39,8	3	420	58	1000	1600	2770
70,00	PH822F0700 MEL	3300	6000	>32≤38	5,3	39,8	3	420	58	1000	1600	2770
100,0	PH822F1000 ME	3300	6000	≤24	3,4	39,8	3	304	58	800	1200	2400
100,0	PH822F1000 ME	3300	6000	>24≤32	5,3	39,8	3	304	58	800	1200	2400
100,0	PH822F1000 MEL	3300	6000	>32≤38	5,3	39,8	3	304	58	800	1200	2400
100,0	PH822F1000 MEL	3300	6000	>38≤48	16	43,6	3	304	58	800	1200	2400

行星齿轮减速器 PH

Planetary Gear Units **PH**



 STÖBER

请注意 PH6 页的符号注释!

Please take notice of the indications on page PH6!

i	Typ	n1MAX DB [min-1]	n1MAX ZB [min-1]	MWØ [mm]	J1 [10 ⁻⁴ kgm ²]	G	Δφ2 [arcmin]	C ₂ [Nm/arcmin]	LPA [dB(A)]	M _{2N} [Nm]	M _{2B} [Nm]	M _{2NOT} [Nm]
PH932 (M_{2BMAX}=5000 Nm)												
12,00	PH932F0120 ME	1800	3000	≤32	60	70,6	3	1091	66	3000	3700	4630
12,00	PH932F0120 ME	1800	3000	>32≤38	63	70,6	3	1110	66	3000	4610	6720
12,00	PH932F0120 ME	1800	3000	>38≤48	67	70,6	3	1110	66	3000	4610	6740
12,00	PH932F0120 MEL	1800	3000	>48≤55	99	75,2	3	1201	66	3000	4610	6740
12,00	PH932F0120 MEL	1800	3000	>55≤60	103	75,2	3	1201	66	3000	4610	6740
16,00	PH932F0160 ME	2200	3500	≤32	29	70,6	3	1127	64	3000	4930	6170
16,00	PH932F0160 ME	2200	3500	>32≤38	33	70,6	3	1139	64	3000	5000	8960
16,00	PH932F0160 ME	2200	3500	>38≤48	37	70,6	3	1139	64	3000	5000	8960
16,00	PH932F0160 MEL	2200	3500	>48≤55	69	75,2	3	1191	64	3000	5000	8960
16,00	PH932F0160 MEL	2200	3500	>55≤60	73	75,2	3	1191	64	3000	5000	8960
18,00	PH932F0180 ME	1800	3000	≤32	53	70,6	3	1075	66	3000	4500	6940
18,00	PH932F0180 ME	1800	3000	>32≤38	57	70,6	3	1084	66	3000	4500	9000
18,00	PH932F0180 ME	1800	3000	>38≤48	61	70,6	3	1084	66	3000	4500	9000
18,00	PH932F0180 MEL	1800	3000	>48≤55	93	75,2	3	1120	66	3000	4500	9000
18,00	PH932F0180 MEL	1800	3000	>55≤60	97	75,2	3	1120	66	3000	4500	9000
20,00	PH932F0200 ME	2500	4000	≤32	22	70,6	3	1134	62	3000	5000	7710
20,00	PH932F0200 ME	2500	4000	>32≤38	26	70,6	3	1142	62	3000	5000	10000
20,00	PH932F0200 ME	2500	4000	>38≤48	29	70,6	3	1142	62	3000	5000	10000
20,00	PH932F0200 MEL	2500	4000	>48≤55	61	75,2	3	1175	62	3000	5000	10000
20,00	PH932F0200 MEL	2500	4000	>55≤60	66	75,2	3	1175	62	3000	5000	10000
24,00	PH932F0240 ME	2200	3500	≤32	26	70,6	3	1091	64	3000	4500	9000
24,00	PH932F0240 ME	2200	3500	>32≤38	30	70,6	3	1096	64	3000	4500	9000
24,00	PH932F0240 ME	2200	3500	>38≤48	34	70,6	3	1096	64	3000	4500	9000
24,00	PH932F0240 MEL	2200	3500	>48≤55	65	75,2	3	1116	64	3000	4500	9000
24,00	PH932F0240 MEL	2200	3500	>55≤60	70	75,2	3	1116	64	3000	4500	9000
28,00	PH932F0280 ME	2800	4500	≤32	16	70,6	3	1121	61	3000	5000	10000
28,00	PH932F0280 ME	2800	4500	>32≤38	18	70,6	3	1121	61	3000	5000	10000
28,00	PH932F0280 ME	2800	4500	>38≤48	21	70,6	3	1121	61	3000	5000	10000
28,00	PH932F0280 MEL	2800	4500	>48≤55	54	75,2	3	1140	61	3000	5000	10000
30,00	PH932F0300 ME	2500	4000	≤32	20	70,6	3	1094	62	3000	4500	9000
30,00	PH932F0300 ME	2500	4000	>32≤38	24	70,6	3	1097	62	3000	4500	9000
30,00	PH932F0300 ME	2500	4000	>38≤48	27	70,6	3	1097	62	3000	4500	9000
30,00	PH932F0300 MEL	2500	4000	>48≤55	59	75,2	3	1110	62	3000	4500	9000
30,00	PH932F0300 MEL	2500	4000	>55≤60	64	75,2	3	1110	62	3000	4500	9000
32,00	PH932F0320 ME	2800	4500	≤32	14	70,6	3	1093	60	3000	4610	9220
32,00	PH932F0320 ME	2800	4500	>32≤38	17	70,6	3	1093	60	3000	4610	9220
32,00	PH932F0320 ME	2800	4500	>38≤48	20	70,6	3	1093	60	3000	4610	9220
32,00	PH932F0320 MEL	2800	4500	>48≤55	53	75,2	3	1107	60	3000	4610	9220
40,00	PH932F0400 ME	2800	4500	≤32	12	70,6	3	1046	59	2690	4610	9220
40,00	PH932F0400 ME	2800	4500	>32≤38	15	70,6	3	1046	59	2690	4610	9220
40,00	PH932F0400 ME	2800	4500	>38≤48	18	70,6	3	1046	59	2690	4610	9220
40,00	PH932F0400 MEL	2800	4500	>48≤55	50	75,2	3	1054	59	2690	4610	9220
42,00	PH932F0420 ME	2800	4500	≤32	15	70,6	3	1088	61	3000	4500	9000
42,00	PH932F0420 ME	2800	4500	>32≤38	17	70,6	3	1088	61	3000	4500	9000
42,00	PH932F0420 ME	2800	4500	>38≤48	20	70,6	3	1088	61	3000	4500	9000
42,00	PH932F0420 MEL	2800	4500	>48≤55	53	75,2	3	1096	61	3000	4500	9000
48,00	PH932F0480 ME	2800	4500	≤32	14	70,6	3	1076	60	3000	4500	9000
48,00	PH932F0480 ME	2800	4500	>32≤38	16	70,6	3	1076	60	3000	4500	9000
48,00	PH932F0480 ME	2800	4500	>38≤48	19	70,6	3	1076	60	3000	4500	9000
48,00	PH932F0480 MEL	2800	4500	>48≤55	52	75,2	3	1082	60	3000	4500	9000
60,00	PH932F0600 ME	2800	4500	≤32	12	70,6	3	1055	59	3000	4500	9000
60,00	PH932F0600 ME	2800	4500	>32≤38	14	70,6	3	1055	59	3000	4500	9000
60,00	PH932F0600 ME	2800	4500	>38≤48	17	70,6	3	1055	59	3000	4500	9000
60,00	PH932F0600 MEL	2800	4500	>48≤55	50	75,2	3	1059	59	3000	4500	9000

更高传动比参阅 PHV 减速器

Higher ratios see PHV gear units.

行星齿轮减速器 PH

Planetary Gear Units **PH**



请注意 PH6 页的符号注释!

Please take notice of the indications on page PH6!

i	Typ	n1MAX DB [min ⁻¹]	n1MAX ZB [min ⁻¹]	MWØ [mm]	J1 [10 ⁻⁴ kgm ²]	G [kg]	Δφ2 [arcmin]	C2 [Nm/arcmin]	LPA [dB(A)]	M2N [Nm]	M2B [Nm]	M2NOT [Nm]
PH1032 (M2BMAX=7500 Nm)												
18,00	PH1032F0180 ME	1800	3000	≤32	57	86,0	3	1636	66	4610	5550	6940
18,00	PH1032F0180 ME	1800	3000	>32≤38	61	86,0	3	1656	66	4610	6910	10080
18,00	PH1032F0180 ME	1800	3000	>38≤48	64	86,0	3	1656	66	4610	6910	10120
18,00	PH1032F0180 MEL	1800	3000	>48≤55	96	90,6	3	1743	66	4610	6910	10120
18,00	PH1032F0180 MEL	1800	3000	>55≤60	101	90,6	3	1743	66	4610	6910	10120
24,00	PH1032F0240 ME	2200	3500	≤32	28	86,0	3	1672	64	4610	7400	9250
24,00	PH1032F0240 ME	2200	3500	>32≤38	32	86,0	3	1684	64	4610	7500	13430
24,00	PH1032F0240 ME	2200	3500	>38≤48	36	86,0	3	1684	64	4610	7500	13430
24,00	PH1032F0240 MEL	2200	3500	>48≤55	67	90,6	3	1733	64	4610	7500	13430
24,00	PH1032F0240 MEL	2200	3500	>55≤60	72	90,6	3	1733	64	4610	7500	13430
30,00	PH1032F0300 ME	2500	4000	≤32	21	86,0	3	1679	62	5000	7500	11570
30,00	PH1032F0300 ME	2500	4000	>32≤38	25	86,0	3	1686	62	5000	7500	15000
30,00	PH1032F0300 ME	2500	4000	>38≤48	28	86,0	3	1686	62	5000	7500	15000
30,00	PH1032F0300 MEL	2500	4000	>48≤55	60	90,6	3	1718	62	5000	7500	15000
30,00	PH1032F0300 MEL	2500	4000	>55≤60	65	90,6	3	1718	62	5000	7500	15000
42,00	PH1032F0420 ME	2800	4500	≤32	15	86,0	3	1666	61	5000	7500	15000
42,00	PH1032F0420 ME	2800	4500	>32≤38	17	86,0	3	1666	61	5000	7500	15000
42,00	PH1032F0420 ME	2800	4500	>38≤48	21	86,0	3	1666	61	5000	7500	15000
42,00	PH1032F0420 MEL	2800	4500	>48≤55	53	90,6	3	1685	61	5000	7500	15000
48,00	PH1032F0480 ME	2800	4500	≤32	14	86,0	3	1638	60	4610	6910	13820
48,00	PH1032F0480 ME	2800	4500	>32≤38	16	86,0	3	1638	60	4610	6910	13820
48,00	PH1032F0480 ME	2800	4500	>38≤48	20	86,0	3	1638	60	4610	6910	13820
48,00	PH1032F0480 MEL	2800	4500	>48≤55	52	90,6	3	1652	60	4610	6910	13820
60,00	PH1032F0600 ME	2800	4500	≤32	12	86,0	3	1591	59	4030	6910	13820
60,00	PH1032F0600 ME	2800	4500	>32≤38	14	86,0	3	1591	59	4030	6910	13820
60,00	PH1032F0600 ME	2800	4500	>38≤48	18	86,0	3	1591	59	4030	6910	13820
60,00	PH1032F0600 MEL	2800	4500	>48≤55	50	90,6	3	1599	59	4030	6910	13820

行星齿轮减速器 PH

Planetary Gear Units **PH**



请注意 PH6 页的符号注释!

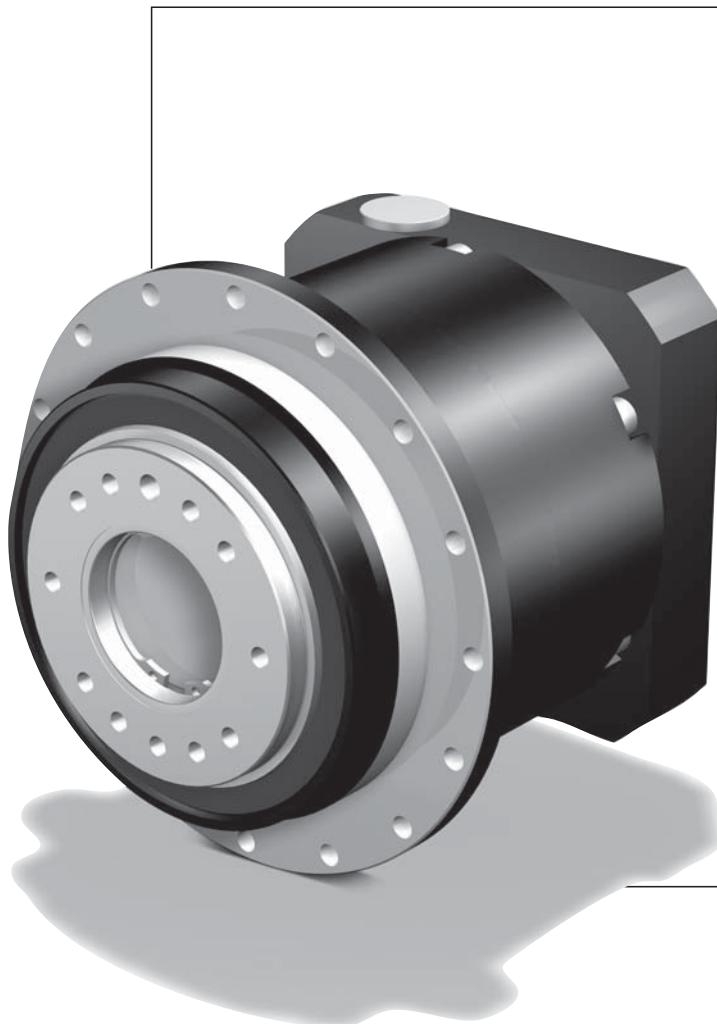
Please take notice of the indications on page PH6!

i	Typ	n1MAX DB [min-1]	n1MAX ZB [min-1]	MWØ [mm]	J1 [10 ⁻⁴ kgm ²]	G	Δφ2 [arcmin]	C2 [Nm/arcmin]	LPA [dB(A)]	M2N [Nm]	M2B [Nm]	M2NOT [Nm]
PHV933 (M2BMAX=4250 Nm)												
61,00	PHV933F0610 ME	2500	4500	>24≤32	9,5	62,8	3	845	62	2500	4250	9000
61,00	PHV933F0610 ME	2500	4500	>32≤38	10	62,8	3	845	62	2500	4250	9000
61,00	PHV933F0610 MEL	2500	4500	>38≤48	22	66,6	3	848	62	2500	4250	9000
91,00	PHV933F0910 ME	2500	4500	≤24	5,2	62,8	3	836	62	2500	4250	9000
91,00	PHV933F0910 ME	2500	4500	>24≤32	7,4	62,8	3	836	62	2500	4250	9000
91,00	PHV933F0910 ME	2500	4500	>32≤38	8,7	62,8	3	836	62	2500	4250	9000
91,00	PHV933F0910 MEL	2500	4500	>38≤48	18	66,6	3	837	62	2500	4250	9000
121,0	PHV933F1210 ME	2500	4500	≤24	4,2	62,8	3	804	62	2500	4250	9000
121,0	PHV933F1210 ME	2500	4500	>24≤32	6,4	62,8	3	804	62	2500	4250	9000
121,0	PHV933F1210 ME	2500	4500	>32≤38	7,7	62,8	3	804	62	2500	4250	9000
121,0	PHV933F1210 MEL	2500	4500	>38≤48	17	66,6	3	804	62	2500	4250	9000
PHV1033 (M2BMAX=7500 Nm)												
61,00	PHV1033F0610 ME	2500	4500	>32≤38	19	90,0	3	1364	63	4000	7500	15000
61,00	PHV1033F0610 ME	2500	4500	>38≤48	24	90,0	3	1364	63	4000	7500	15000
91,00	PHV1033F0910 ME	2500	4500	≤32	13	90,0	3	1339	63	4000	7500	15000
91,00	PHV1033F0910 ME	2500	4500	>32≤38	17	90,0	3	1339	63	4000	7500	15000
91,00	PHV1033F0910 ME	2500	4500	>38≤48	19	90,0	3	1339	63	4000	7500	15000

尺寸图：
ServoFit® PH
行星齿轮减速器

Dimension drawings:
ServoFit® PH
Planetary Gear Units

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PH

行星齿轮减速器 PH + PHV

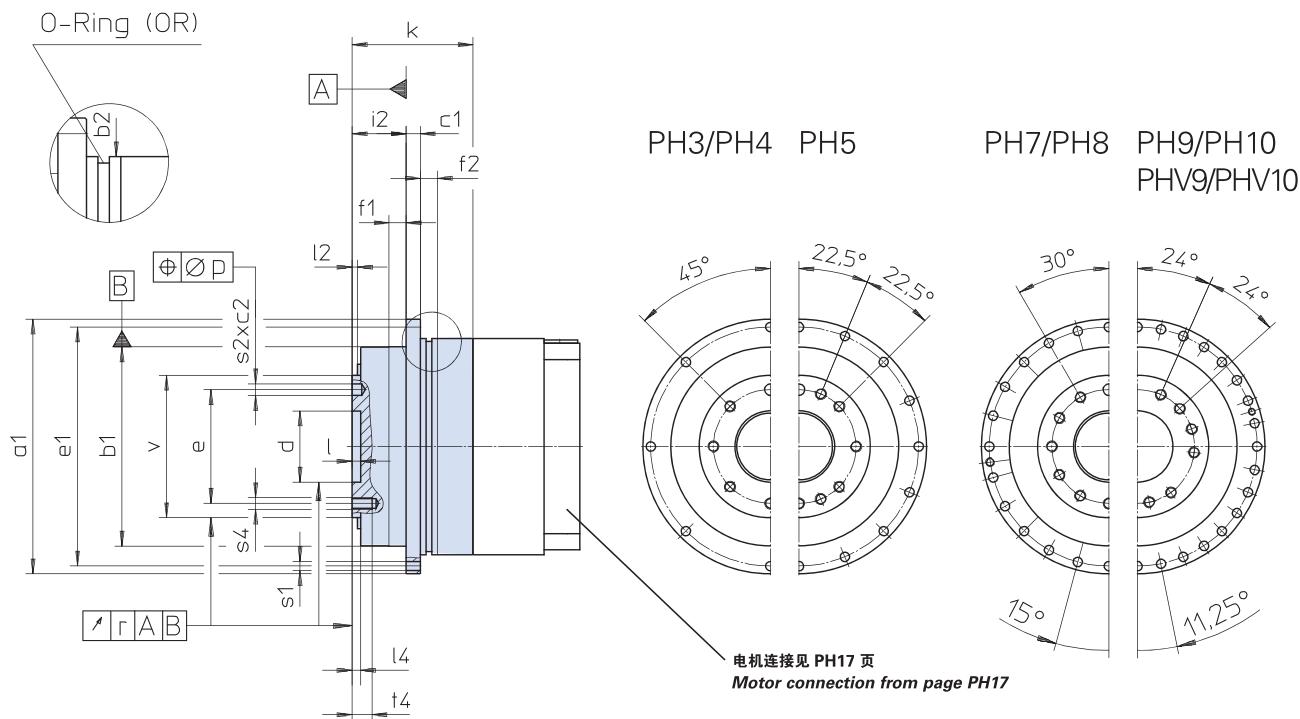
Planetary Gear Units **PH + PHV**



STÖBER

PH3...ME - PH10...ME

PHV9...ME - PHV10...ME



Typ	øa1	øb1	øb2	c1	c2	ød	øe	øe1	f1	f2	i2
PH321	86h7	64h7	70h7	4	3	20,0H6	31,5	79	7	8	19,5
PH322	86h7	64h7	70h7	4	3	20,0H6	31,5	79	7	8	19,5
PH421	118h7	90h7	95h7	7	7	31,5H6	50,0	109	10	10	30,0
PH422	118h7	90h7	95h7	7	7	31,5H6	50,0	109	10	10	30,0
PH521	145h7	110h7	120h7	8	7	40,0H6	63,0	135	10	12	29,0
PH522	145h7	110h7	120h7	8	7	40,0H6	63,0	135	10	12	29,0
PH721	179h7	140h7	152h7	10	7	50,0H6	80,0	168	12	12	38,0
PH722	179h7	140h7	152h7	10	7	50,0H6	80,0	168	12	12	38,0
PH821	247h7	200h7	212h7	12	10	80,0H6	125,0	233	15	15	50,0
PH822	247h7	200h7	212h7	12	10	80,0H6	125,0	233	15	15	50,0
PH932	300	255h7	255h7	18	-	90,0H6	140,0	280	20	33	66,0
PHV933	300	255h7	255h7	18	-	90,0H6	140,0	280	20	33	66,0
PH1032	330	285h7	285h7	20	-	95,0H6	160,0	310	20	20	75,0
PHV1033	330	285h7	285h7	20	-	95,0H6	160,0	310	20	20	75,0

Typ	k	l	l2	l4	OR	øp	r	øs1	øs2	s4	t4	øv
PH321	50,0	4	3	3,5	65x2	0,02	0,020	4,5	5H7	M5	7	40h7
PH322	87,0	4	3	3,5	65x2	0,02	0,020	4,5	5H7	M5	7	40h7
PH421	66,0	6	6	6,0	90x3	0,02	0,020	5,5	6H7	M6	11	63h7
PH422	113,0	6	6	6,0	90x3	0,02	0,020	5,5	6H7	M6	11	63h7
PH521	70,0	6	6	6,0	110x3	0,02	0,020	5,5	6H7	M6	11	80h7
PH522	124,5	6	6	6,0	110x3	0,02	0,020	5,5	6H7	M6	11	80h7
PH721	88,0	6	6	6,0	145x3	0,02	0,025	6,6	8H7	M8	14	100h7
PH722	150,0	6	6	6,0	145x3	0,02	0,025	6,6	8H7	M8	14	100h7
PH821	126,0	8	8	8,0	200x5	0,02	0,030	9,0	10H7	M10	18	160h7
PH822	201,0	8	8	8,0	200x5	0,02	0,030	9,0	10H7	M10	18	160h7
PH932	290,5	12	11	12,0	238x5	-	0,030	13,5	-	M16	24	180h7
PHV933	219,5	12	11	12,0	238x5	-	0,030	13,5	-	M16	24	180h7
PH1032	307,0	10	15	15,0	270x6	-	0,040	13,5	-	M20	30	200h7
PHV1033	250,0	10	15	15,0	270x6	-	0,040	13,5	-	M20	30	200h7

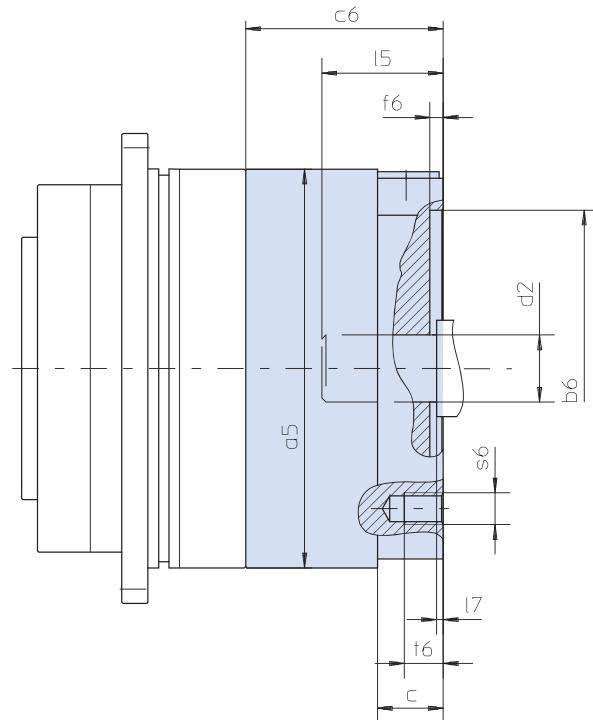
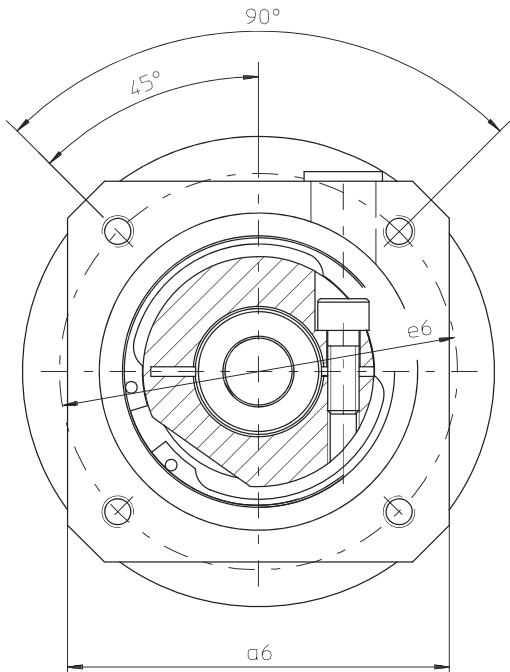
行星齿轮减速器 PH + PHV 电机连接

Planetary Gear Units **PH + PHV** motor connection



 STÖBER

**PH321...ME - PH821...ME
PHV933...ME - PHV1033...ME**



更多的电机连接尺寸可按需定制

Further motor connection dimensions on request.

PH

Typ	øb6	øe6	ød2max	l5max	□a6	c	c6	f6	l7max	s6	t6
PH321	40,0H7	63	19	40	75	22	52,5	3,5	3,0	M5	11
PH321	50,0H7	70	19	40	75	22	52,5	3,5	3,0	M4	9
PH321	50,0H7	95	19	40	80	22	52,5	3,5	3,0	M6	13
PH321	60,0H7	75	19	40	75	22	52,5	3,5	3,0	M5	11
PH321	60,0H7	90	19	40	75	22	52,5	3,5	3,0	M5	11
PH321	70,0H7	90	19	40	80	22	52,5	3,5	3,0	M5	11
PH321	80,0H7	100	19	40	90	22	52,5	3,5	3,0	M6	13
PH321	95,0H7	115	19	40	100	22	52,5	4,0	3,0	M8	22
PH321	95,0H7	130	19	40	115	22	52,5	4,0	3,0	M8	18
PH421	50,0H7	95	24	40	100	21	54,0	2,5	3,0	M6	13
PH421	80,0H7	100	24	40	100	21	54,0	4,0	3,0	M6	13
PH421	95,0H7	115	24	40	100	21	54,0	4,0	3,0	M8	21
PH421	95,0H7	115	24	50	100	30	63,0	4,0	12,0	M8	16
PH421	95,0H7	130	24	40	115	21	54,0	4,0	3,0	M8	21
PH421	110,0H7	130	24	50	115	30	63,0	4,0	12,0	M8	16
PH421	110,0H7	145	24	58	130	38	71,0	7,0	17,0	M8	16
PH421	130,0H7	165	24	50	140	30	63,0	5,0	12,0	M10	20
PH521	95,0H7	115	32	50	115	24	64,0	4,0	3,5	M8	16
PH521	95,0H7	130	32	50	115	24	64,0	4,0	3,5	M8	16
PH521	110,0H7	130	32	50	115	24	64,0	4,0	3,5	M8	16
PH521	110,0H7	145	32	62	130	37	77,0	7,0	16,5	M8	14
PH521	110,0H7	165	32	50	140	24	64,0	5,0	3,5	M10	24
PH521	130,0H7	165	32	58	140	32	72,0	5,0	11,5	M10	20
PH721/PHV933	110,0H7	130	38	60	145	26	76,0	5,0	4,5	M8	14
PH721/PHV933	110,0H7	165	38	60	145	26	76,0	5,0	4,5	M10	26
PH721/PHV933	114,3H7	200	38	80	180	45	95,0	5,0	23,5	M12	25
PH721/PHV933	130,0H7	165	38	60	145	26	76,0	5,0	4,5	M10	26
PH721/PHV933	130,0H7	215	38	60	190	26	76,0	5,0	4,5	M12	26
PH721/PHV933	180,0H7	215	38	80	190	45	95,0	5,0	23,5	M12	25
PH821/PHV1033	114,3H7	200	48	80	190	34	91,0	4,0	4,0	M12	34
PH821/PHV1033	130,0H7	165	48	80	190	34	91,0	5,0	4,0	M10	18
PH821/PHV1033	130,0H7	215	48	80	190	34	91,0	5,0	4,0	M12	34
PH821/PHV1033	180,0H7	215	48	80	190	34	93,0	5,0	4,0	M12	34
PH821/PHV1033	250,0H7	300	48	82	260	38	97,0	6,0	8,0	M16	38

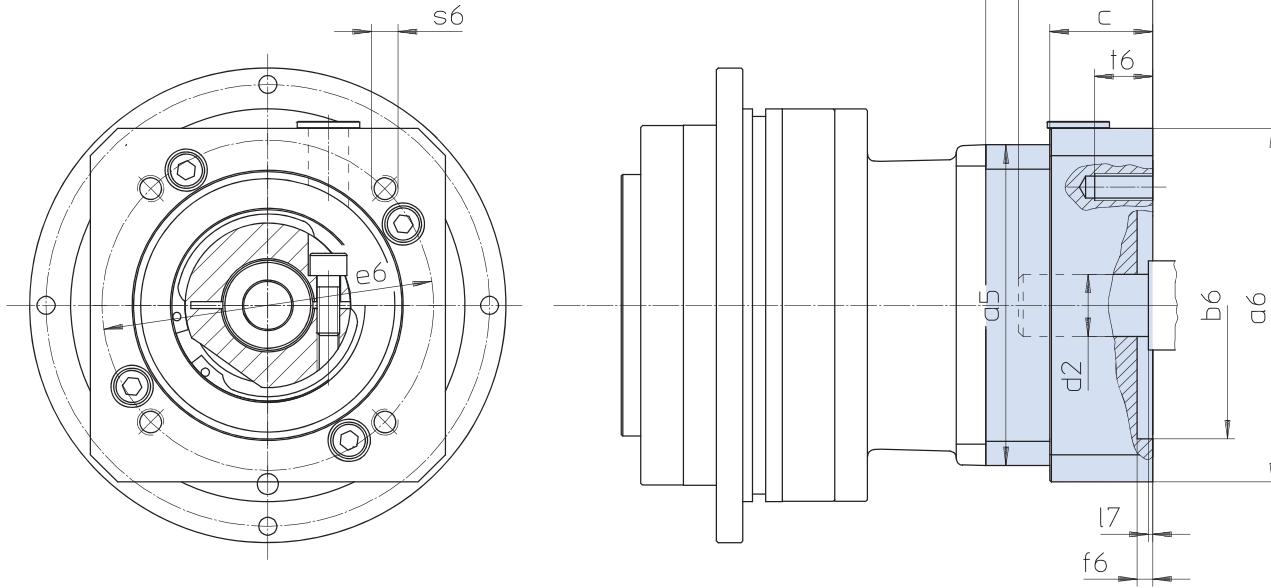
行星齿轮减速器 PH 电机连接

Planetary Gear Units **PH** motor connection



 STÖBER

PH322...ME - PH1032...ME



更多的电机连接尺寸可按需定制

Further motor connection dimensions on request.

Typ	øb6	øe6	ød2max	l5max	□a6	c	c6	f6	l7max	s6	t6
PH322	40,0H7	63	14	30	55	-	32,0	3,5	3,0	M4	6
PH322	40,0H7	63	14	30	55	-	32,0	3,5	3,0	M5	11
PH322	50,0H7	70	14	30	60	-	32,0	3,5	3,0	M4	9
PH322	50,0H7	95	14	30	90	15	32,0	3,5	3,0	M6	15
PH322	60,0H7	75	14	30	75	-	32,0	3,5	3,0	M5	11
PH422	40,0H7	63	19	40	75	18	51,5	3,0	3,0	M5	11
PH422	50,0H7	70	19	40	75	18	51,5	3,0	3,0	M4	9
PH422	50,0H7	95	19	40	80	18	51,5	3,0	3,0	M6	13
PH422	60,0H7	75	19	40	75	-	51,5	3,5	3,0	M5	11
PH422	60,0H7	90	19	40	75	18	51,5	3,5	3,0	M5	9
PH422	70,0H7	90	19	40	80	18	51,5	3,5	3,0	M5	9
PH422	80,0H7	100	19	40	90	-	51,5	3,5	3,0	M6	13
PH422	95,0H7	115	19	40	100	18	51,5	4,0	3,0	M8	18
PH422	95,0H7	130	19	40	115	18	51,5	4,0	3,0	M8	18
PH522	50,0H7	95	24	40	100	21	56,0	2,5	3,0	M6	13
PH522	80,0H7	100	24	40	100	-	56,0	4,0	3,0	M6	13
PH522	95,0H7	115	24	50	100	30	65,0	4,0	12,0	M6	16
PH522	95,0H7	115	24	40	100	-	56,0	4,0	3,0	M8	16
PH522	95,0H7	130	24	40	115	21	56,0	4,0	3,0	M8	16
PH522	95,0H7	130	24	50	115	30	65,0	4,0	12,0	M8	16
PH522	110,0H7	130	24	50	115	30	65,0	4,0	12,0	M8	16
PH522	110,0H7	145	24	58	130	38	73,0	7,0	20,0	M8	16
PH522	130,0H7	165	24	50	140	30	65,0	5,0	12,0	M10	20
PH722	95,0H7	115	32	50	115	-	64,0	4,0	3,5	M8	16
PH722	95,0H7	130	32	50	115	24	64,0	4,0	3,5	M8	16
PH722	110,0H7	130	32	50	115	-	64,0	4,0	3,5	M8	16
PH722	110,0H7	145	32	58	130	32	72,0	6,5	11,5	M8	16
PH722	110,0H7	145	32	68	130	42	84,0	7,0	21,5	M8	14
PH722	110,0H7	165	32	50	140	24	64,0	5,0	3,5	M10	24
PH722	130,0H7	165	32	58	140	32	72,0	5,0	11,5	M10	20
PH822	110,0H7	130	38	60	145	26	76,0	5,0	4,5	M8	14
PH822	110,0H7	165	38	60	145	26	76,0	5,0	4,5	M10	26
PH822	114,3H7	200	38	80	180	45	95,0	5,0	23,5	M12	25
PH822	130,0H7	165	38	60	150	-	76,0	5,0	4,5	M10	20
PH822	130,0H7	215	38	60	190	26	76,0	5,0	4,5	M12	26
PH822	180,0H7	215	38	60	190	26	85,0	5,0	4,0	M12	26
PH822	180,0H7	215	38	80	190	45	95,0	5,0	23,5	M12	25
PH932/PH1032	110,0H7	165	48	80	190	34	93,0	5,0	4,0	M10	18
PH932/PH1032	114,3H7	200	48	80	190	34	93,0	4,0	4,0	M12	34
PH932/PH1032	130,0H7	165	48	80	190	34	93,0	5,0	4,0	M10	18
PH932/PH1032	130,0H7	215	48	80	190	34	93,0	5,0	4,0	M12	34
PH932/PH1032	180,0H7	215	48	80	190	34	93,0	5,0	4,0	M12	34
PH932/PH1032	250,0H7	300	48	82	260	38	97,0	6,0	8,0	M16	38

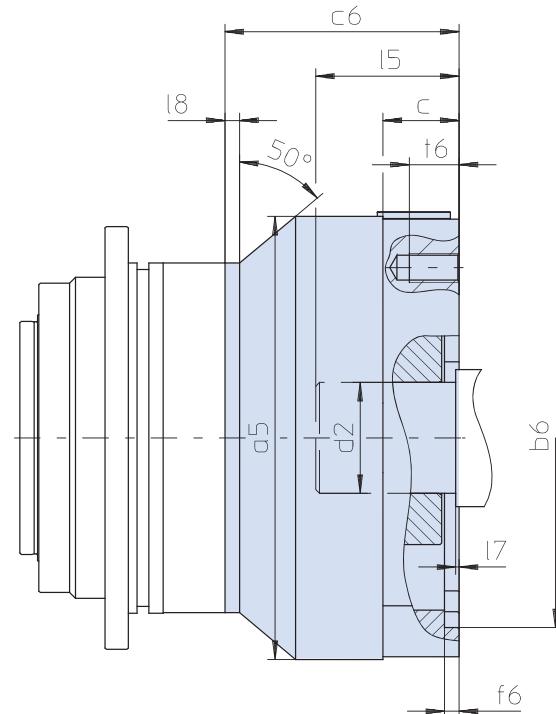
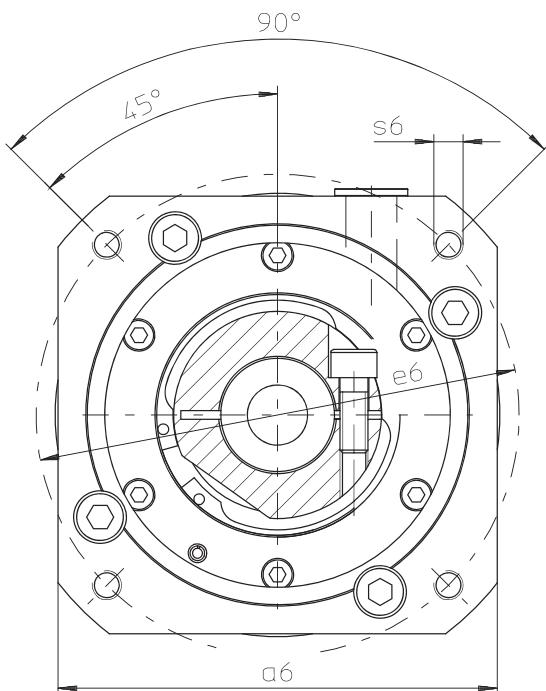
行星齿轮减速器 PH + PHV 电机连接 - 大规格电机法兰盘

Planetary Gear Units **PH + PHV** motor connect. - large motor plate



 STÖBER

**PH321...MEL - PH721...MEL
PHV933...MEL**



更多的电机连接尺寸可按需定制

Further motor connection dimensions on request.

PH

Typ	øb6	øe6	ød2max	l5max	da6	c	c6	f6	l7max	s6	t6
PH321	95,0H7	115	24	40	100	21	58,8	4,0	3,0	M8	21
PH321	95,0H7	115	24	50	100	30	67,8	4,0	12,0	M8	16
PH321	95,0H7	130	24	40	115	21	58,8	4,0	3,0	M8	21
PH321	95,0H7	130	24	50	115	30	67,8	4,0	12,0	M8	16
PH321	110,0H7	130	24	50	115	30	67,8	4,0	12,0	M8	16
PH321	110,0H7	145	24	58	130	38	75,8	7,0	17,0	M8	16
PH321	130,0H7	165	24	50	140	30	67,8	5,0	12,0	M10	20
PH421	110,0H7	130	38	60	145	26	67,5	5,0	3,5	M8	14
PH421	110,0H7	145	32	62	130	37	78,5	7,0	16,5	M8	14
PH421	110,0H7	165	32	50	140	24	65,5	5,0	3,5	M10	24
PH421	110,0H7	165	38	60	145	26	67,5	5,0	3,5	M10	26
PH421	130,0H7	165	32	58	140	32	73,5	5,0	11,5	M10	20
PH421	130,0H7	165	38	60	145	26	67,5	5,0	3,5	M10	26
PH521	114,3H7	200	38	80	180	45	99,0	5,0	23,5	M12	25
PH521	130,0H7	215	38	60	190	26	80,0	5,0	4,5	M12	26
PH521	180,0H7	215	38	80	190	45	99,0	5,0	23,5	M12	25
PH721/PHV933	114,3H7	200	48	80	190	34	100,5	4,0	4,0	M12	34
PH721/PHV933	180,0H7	215	48	80	190	34	100,5	5,0	4,0	M12	34
PH721/PHV933	250,0H7	300	48	82	260	38	104,5	6,0	8,0	M16	38

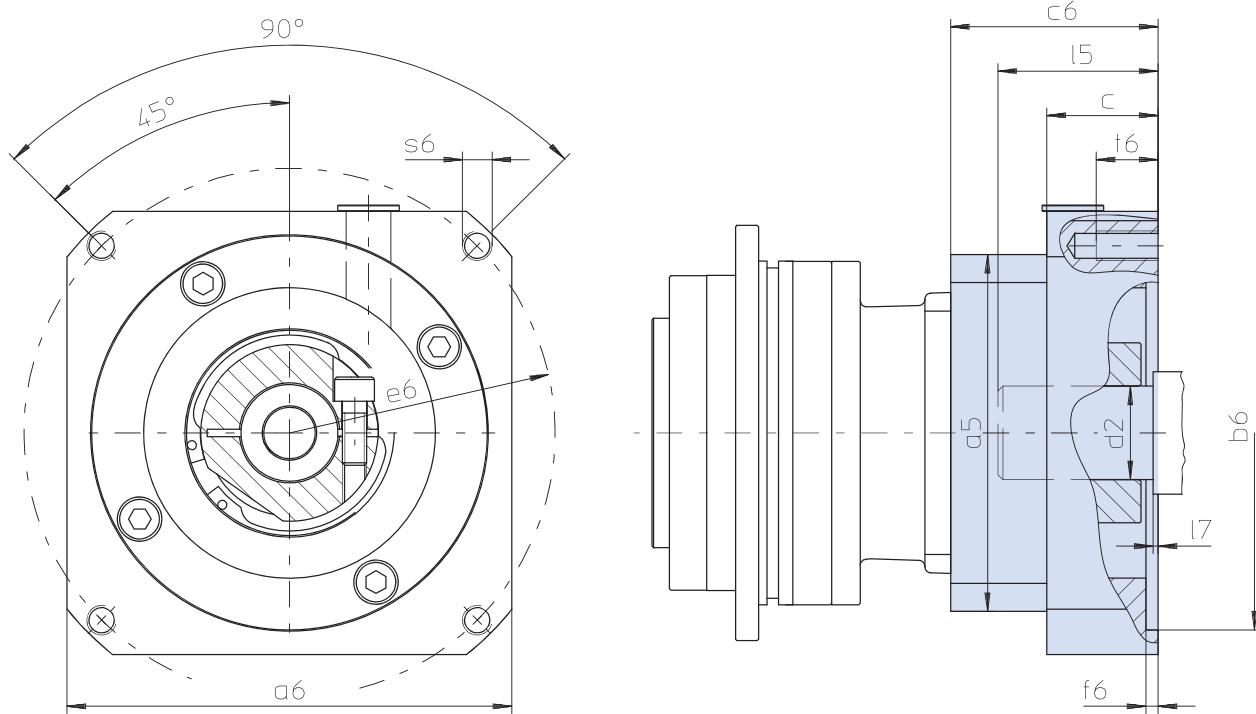
行星齿轮减速器 PH + PHV 电机连接 - 大规格电机法兰盘

Planetary Gear Units **PH + PHV** motor connect. - large motor plate



 STÖBER

PH322...MEL - PH1032...MEL



更多的电机连接尺寸可按需定制

Further motor connection dimensions on request.

Typ	øb6	øe6	ød2max	l5max	□a6	c	c6	f6	l7max	s6	t6
PH322	60,0H7	75	19	40	75	18	51,5	3,5	3,0	M5	11
PH322	60,0H7	90	19	40	75	18	51,5	3,5	3,0	M5	9
PH322	70,0H7	90	19	40	80	18	51,5	3,5	3,0	M5	9
PH322	80,0H7	100	19	40	90	18	51,5	3,5	3,0	M6	13
PH322	95,0H7	115	19	40	100	18	51,5	4,0	3,0	M8	18
PH322	95,0H7	130	19	40	115	18	51,5	4,0	3,0	M8	18
PH422	110,0H7	130	24	50	115	30	66,8	4,0	12,0	M8	16
PH422	110,0H7	145	24	58	130	38	74,8	7,0	20,0	M8	16
PH422	130,0H7	165	24	50	140	30	66,8	5,0	12,0	M10	20
PH422	80,0H7	100	24	40	100	21	57,8	4,0	3,0	M6	13
PH422	95,0H7	115	24	40	100	21	57,8	4,0	3,0	M8	16
PH422	95,0H7	115	24	50	100	30	66,8	4,0	3,0	M6	16
PH422	95,0H7	130	24	40	115	21	57,8	4,0	3,0	M8	16
PH422	95,0H7	130	24	50	115	30	66,8	4,0	12,0	M8	16
PH522	110,0H7	130	32	50	115	24	67,5	4,0	11,5	M8	16
PH522	110,0H7	145	32	58	130	32	75,5	6,5	11,5	M8	16
PH522	110,0H7	145	32	68	130	42	85,5	7,0	11,5	M8	14
PH522	110,0H7	165	32	50	140	24	67,5	5,0	3,5	M10	24
PH522	130,0H7	165	32	58	140	32	75,5	5,0	11,5	M10	20
PH722	110,0H7	130	38	60	145	26	80,0	5,0	23,5	M8	14
PH722	110,0H7	165	38	60	145	26	80,0	5,0	23,5	M10	26
PH722	114,3H7	200	38	80	180	45	99,0	5,0	23,5	M12	25
PH722	130,0H7	165	38	60	145	26	80,0	5,0	23,5	M10	26
PH722	130,0H7	215	38	60	190	26	80,0	5,0	4,5	M12	26
PH722	180,0H7	215	38	80	190	45	99,0	5,0	23,5	M12	25
PH822	114,3H7	200	48	80	190	34	101,0	4,0	4,0	M12	34
PH822	130,0H7	165	48	80	190	34	101,0	5,0	4,0	M10	18
PH822	180,0H7	215	48	80	190	34	101,0	5,0	4,0	M12	34
PH822	250,0H7	300	48	82	260	38	105,0	6,0	8,0	M16	38
PH932/PH1032	250,0H7	300	60	85	260	43	110,0	6,0	5,0	M16	32
PH932/PH1032	300,0H7	350	60	110	314	68	135,0	6,0	30,0	M16	34