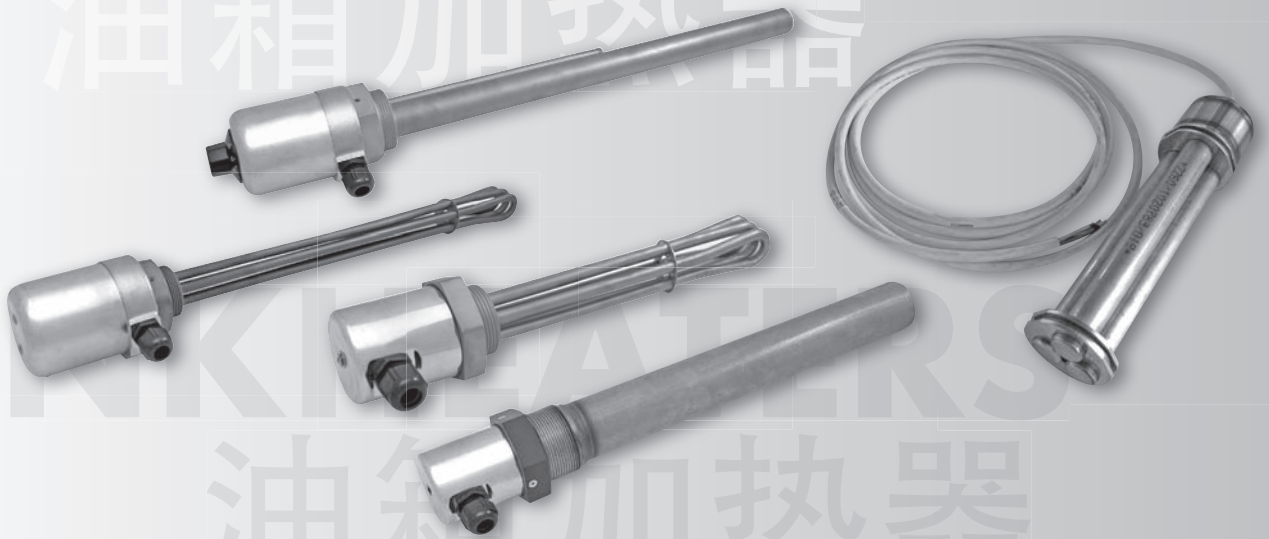


液压配件
联轴器
油箱

HBE.

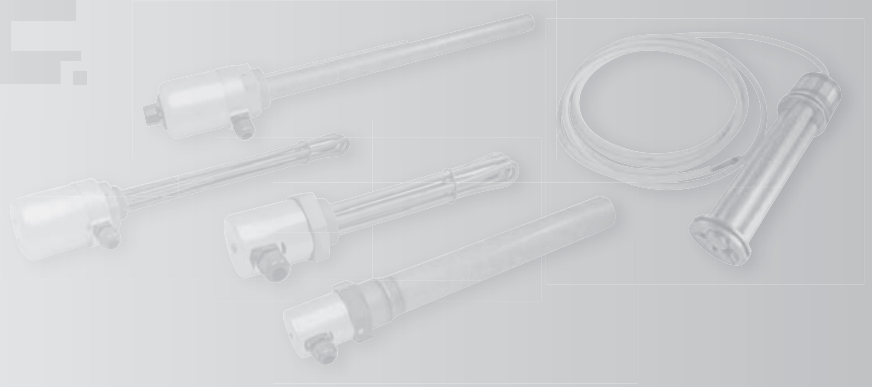
*Hydraulic Components
Drive Couplings
Oil Tanks*

TANK HEATERS
油箱加热器



油箱加热器


TANK HEATERS



油箱加热器

TANK HEATERS

- 标准加热器有 0.25 KW- 5 KW
- 带防爆保护等级, 或者特殊型号的加热器可垂询
- 可提供计算所需油箱加热器的程序

- Standard devices of 0.25 kW-5 kW available
- Devices for -protection and special devices on request
- A calculation programme for determination of the required tank heater is available

应用领域

用于在液压系统中预热矿物基液压油, 使其快速达到所需温度。
理想的介质粘度, 可以降低液压部件的磨损

FIELD OF APPLICATION

Preheating of hydraulic oil on mineral basis for a fast reaching of the operating temperature at hydraulic units. The optimum viscosity decreases the wear of the hydraulic components.

VR



型带磁力固定的浸入式加热器, 安装极其简便, 能解决各种安装难题。保护等级 IP 68。集成了温度调节装置, 到达 40°C 时自动关闭 (标准型)。

Immersion heaters with magnetic clamp, no mounting effort, ideal solution to retrofit existing installations. Protection IP 68. Integrated thermostat with switch-off temperature 40°C (standard).

PTHK 90



型插入式筒状加热器 (筒内带有一个插入式加热棒), 保护等级 IP 65。这种加热棒更换时, 不需放油。连接螺纹型号 G 1 1/2" 和 G 2"。

Cartridge screwed-in tank heater with tube insert. Protection IP 65. This type of heating insert can be changed without evacuation of the oil tank. Screwed thread G 1 1/2" and G 2".

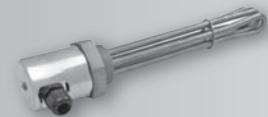
PTHK 91 TH



TH型带温度控制的插入式筒状加热器, 有内部调温和外部调温两种。标准的可调温度范围 0°C 到 85°C。保护等级 IP 54。这种加热管的更换, 不需要放出油箱里的油 (在线换内胆)。连接螺纹型号 G 2"。

Cartridge screwed-in tank heater with temperature adjustment, external or internal regulation. Standard adjustable 0°C up to 85°C. Protection IP 54. This type of heating insert can be changed without evacuation of the oil tank. Screwed thread G 2".

RHK



RHK型插入式管状加热器, 保护等级 IP 54。连接螺纹型号 G 1 1/2"。

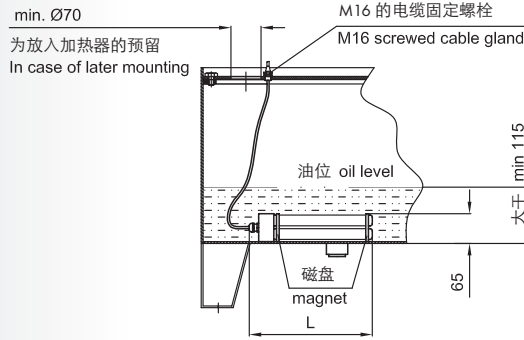
Tube screwed-in heater, protection IP 54. Screwed thread G 1 1/2".

RHK-TH



型带温度控制的插入式管状加热器, 有内部调温和外部调温两种。标准的可调温度范围 0°C 到 85°C。保护等级 IP 54。连接螺纹型号 G 1 1/2"。

Tube screwed-in heater with temperature adjustment, external or internal regulation. Standard adjustable 0°C up to 85°C. Protection IP 54. Screwed thread G 1 1/2".



- 用于预热液压油
- 安装极其简便, 是系统改造的理想选择
- 水平或垂直安装, 最低液位可以很低
- 需要与介质接触的部分, 分别用不锈钢 (1.4571), 黄铜和塑料作为材质
- 本体为焊接而成
- 通过磁力固定, 可以安装在油箱的底部或者侧壁上
- 保护等级 IP 68
- 集成的温度控制器, 可在 40°C 时自动断电 (标准型)
- 集成了限温器
- 表面功率: 介质为 HLP 时, 1.2 W/cm²
介质为 HFA/HFC/HFD-R 时, 0.6 W/cm²

- For preheating of hydraulic oil
- No mounting effort, ideal solution to retrofit existing installations
- Horizontal or vertical arrangement, low minimum oil level
- Medium touched pieces stainless steel (14571), brass and plastics respectively
- Welded type
- Magnetic clamps for fixing at tank bottom/partition wall
- Protection IP 68
- Integrated thermostat with switch-off temperature 40°C (standard)
- Integrated temperature limiter
- Surface charge: 1.2 W/cm² for HLP
0.6 W/cm² for HFA/HFC/HFD-R

结构与材料

- H电热丝外套有不锈钢 (1.4571) 保护筒
- 电缆接头材质为黄铜
- 塑料电缆, 三相, 4 米长, 带 M16 的电缆固定螺栓, 适用于矿物油、植物油、以及 HFA 和 HFC 溶液。

CONSTRUCTION/MATERIALS

- Heating elements protected by tubes made of stainless steel (14571)
- Cable connection made of brass
- Three-pole plastic cable, length 4m, with screwed cable gland M16 resistant to mineral oil, vegetable oil and lubricants as well as HFA and HFC liquids

安装

水平地安装在油箱底部, 或者垂直地安装在油箱的侧壁上, 靠磁力固定。电缆必须从液面以上的高度引出油箱, 比如, 可将电缆通过 M16 的支撑螺母, 固定在油箱或者箱盖上, 然后从箱盖上引出油箱。油箱加热器在工作时, 必须保证在介质液面 15 mm 以下, 否则加热器和介质都有可能被损坏。在系统改造时, 如果加热器要从油箱盖放入, 那么油箱盖上的开孔直径至少要达到 70 mm。安装必须到位, 决不能吊在电缆上。另外, 加热器的磁力固定夹子, 可以起到吸引、集中油箱内铁屑的作用。

MOUNTING

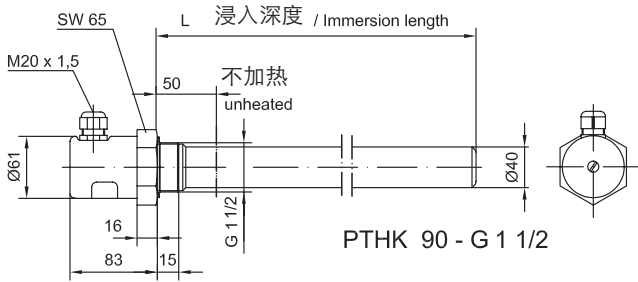
Insert the heater either horizontally to the bottom or vertically towards the tank wall. Fixation by magnetic clamp. The cable must be led outside above the oil level, e.g. through the cover and fixed at the tank or the cover by a screwed cable gland M16. During operation the tank heater must be covered by at least 15 mm of the medium, otherwise the medium and/or the heater might be damaged or destroyed. In case of retro-fitting, the opening of the tank cover which the heater is led through, must amount to 70 mm at least. On no account it should be hung up on the connection cable. Additionally a "gathering" of iron particles in the tank will be achieved by the integrated magnetic clamps.

产品代码 PART NO.	产品代码 TYPE	产品代码 POWER (Watt)	浸入深度 L = (mm)	电源电压 VOLTAGE (VOLT)	W/cm ² W/cm ²	自动调温器 THERMOSTAT
1955	VR 125 W/0,6-M	125	200	230 V/AC	0,6 HFA/ HFC/HFD-R	自动断电温度 40°C (标准型) Switch-off temperature 40°C (standard)
1956	VR 250 W/0,6-M	250	300		0,6 HFA/ HFC/HFD-R	
1957	VR 500 W/0,6-M	500	500		0,6 HFA/ HFC/HFD-R	
1960	VR 250 W/1,2-M	250	200		1,2 HLP	
1961	VR 500 W/1,2-M	500	300		1,2 HLP	
1962	VR 1000 W/1,2-M	1000	500		1,2 HLP	

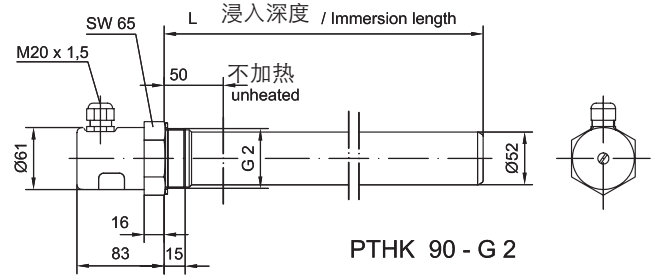
- 交货期短
- 特殊设计可垂询
- 其他附件可垂询, 如:
 - 电源线的保护管套
 - 加热状态指示器
- Short term delivery
- Special designs on request
- Accessories on request
 - Protection tube for supply pipe
 - Indicator heating process/disturbance in external case



- 插入式筒状加热器用于预热液压油
 - 可替换的陶瓷加热棒 (拆装时不需放油)
 - 镀锌的钢质端盖
 - 要求水平安装于油面以下
 - 材料: 钢 (其它材料可垂询)
 - 加热液压油的表面功率为: 1.5 W/cm²
 - 保护等级 IP 65
 - 不同电源电压的配线图可垂询。
- Cartridge heaters for preheating of hydraulic oil
 - Exchangeable ceramic heating insert (mounting/dismounting possible without evacuation of oil)
 - Bright galvanized steel cap
 - For horizontal mounting under oil level
 - Material: Steel (further materials on request)
 - Surface charge 1.5 W/cm² for hydraulic oils
 - Protection IP 65
 - Wiring schemes for different mains voltages on request



PTHK 90 - G 1 1/2



PTHK 90 - G 2

产品代码 PART NO.	产品代码 TYPE	加热功率 POWER (WATT)	浸入深度 L= IMM. DEPTH (mm)	电源电压 VOLTAGE (VOLT)
1705*	PTHK 90-G 1 1/2"	400	200	请在订单中指定电源电压: In case of order please specify: Variante 1: 1 x 230 V Variante 3: 3 x 380 V Variante 5: 3 x 400 V Variante 2: 2 x 380 V Variante 4: 2 x 400 V
1707*		600	300	
1709*		800	400	
1711*		1000	500	
1713*		1200	600	
1715*		1400	700	
1717		1600	800	
1719		1800	900	
1721		2000	1000	
1723		2200	1100	
1725		2400	1200	
1727		2800	1400	
1729		3200	1600	
1731		3600	1800	
1733	4000	2000		

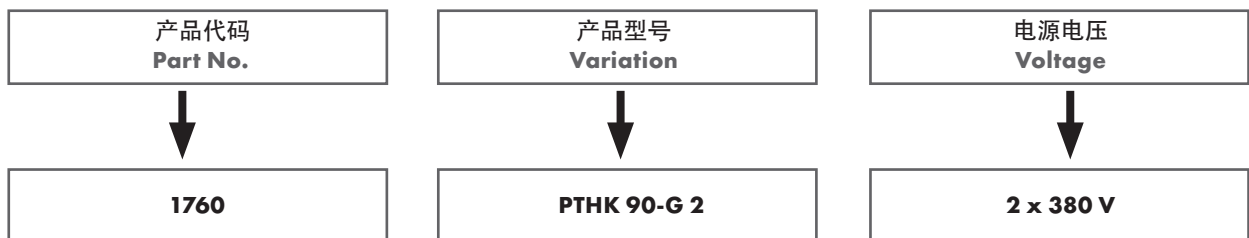
产品代码 PART NO.	产品代码 TYPE	加热功率 POWER (WATT)	浸入深度 L= IMM. DEPTH (mm)	电源电压 VOLTAGE (VOLT)
1750*	PTHK 90-G 2"	500	200	请在订单中指定电源电压: In case of order please specify: Variante 1: 1 x 230 V Variante 3: 3 x 380 V Variante 5: 3 x 400 V Variante 2: 2 x 380 V Variante 4: 2 x 400 V
1752*		750	300	
1754		1000	400	
1756		1250	500	
1758		1450	600	
1760		1700	700	
1762		1950	800	
1764		2200	900	
1766		2450	1000	
1768		2700	1100	
1770		2950	1200	
1772		3450	1400	
1774		3900	1600	
1776		4400	1800	
1778	4900	2000		

*) 最多只能接两相电 Voltage two-phase max.

*) 最多只能接两相电 Voltage two-phase max.

订货描述示例

ORDERING CODE



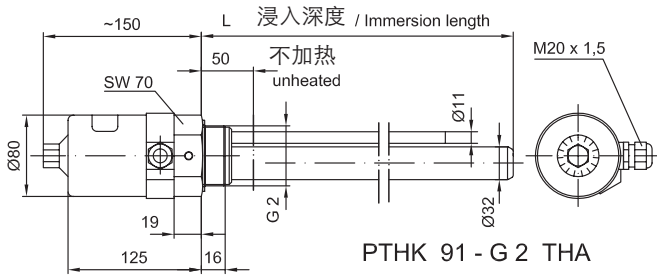
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A calculation programme for determination of the required tank heater is available at info@hbe-hydraulics.com

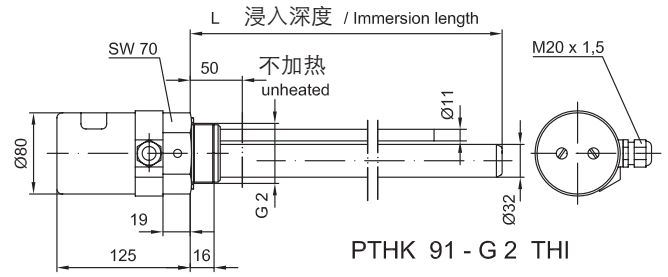


- 插入式筒状加热器用于预热液压油
- 内置(THI)或外置(THA)的
单相温控器: 0°C–85°C, 16 安培
- 可替换的陶瓷加热棒
(拆装时不需放油)
- 镀锌的钢质端盖
- 要求水平安装于油面以下
- 材料: 钢 (其它材料可垂询)
- 加热液压油的表面功率为:
1.5 W/cm²
- 保护等级 IP 54
- 不同电源电压的配线图可垂询

- Cartridge heaters for preheating of hydraulic oil
- Temperature adjustment for internal (THI) and external regulation (THA), single-pole 0°-85°C, 16 amp
- Exchangeable ceramic heating insert (mounting/dismounting possible without evacuation of oil)
- Bright galvanized steel cap
- For horizontal mounting under oil level
- Material: Steel (further materials on request)
- Surface charge 1.5 W/cm² for hydraulic oils
- Protection IP 54
- Wiring schemes for different mains voltages on request



PTHK 91 - G 2 THA



PTHK 91 - G 2 THI

产品代码 PART NO.	产品代码 TYPE	加热功率 POWER (WATT)	浸入深度 L= IMM. DEPTH (mm)	电源电压 VOLTAGE (VOLT)
1800*	PTHK 91-G 2" THA (温控器外置) (external regulation)	450	300	请在订单中指定电源电压: In case of order please specify: Variante 1: 1 x 230 V Variante 3: 3 x 380 V Variante 5: 3 x 400 V Variante 2: 2 x 380 V Variante 4: 2 x 400 V
1802*		600	400	
1804*		750	500	
1806*		900	600	
1808*		1050	700	
1810		1200	800	
1812		1350	900	
1814		1500	1000	
1816		1580	1100	
1818		1730	1200	
1820		1880	1300	
1822		2030	1400	
1824		2180	1500	
1826	2330	1600		

产品代码 PART NO.	产品代码 TYPE	加热功率 POWER (WATT)	浸入深度 L= IMM. DEPTH (mm)	电源电压 VOLTAGE (VOLT)
1801*	PTHK 91-G 2" THI (温控器内置) (internal regulation)	450	300	请在订单中指定电源电压: In case of order please specify: Variante 1: 1 x 230 V Variante 3: 3 x 380 V Variante 5: 3 x 400 V Variante 2: 2 x 380 V Variante 4: 2 x 400 V
1803*		600	400	
1805*		750	500	
1807*		900	600	
1809*		1050	700	
1811*		1200	800	
1813		1350	900	
1815		1500	1000	
1817		1580	1100	
1819		1730	1200	
1821		1880	1300	
1823		2030	1400	
1825		2180	1500	
1827	2330	1600		

*) 最多只能接两相电

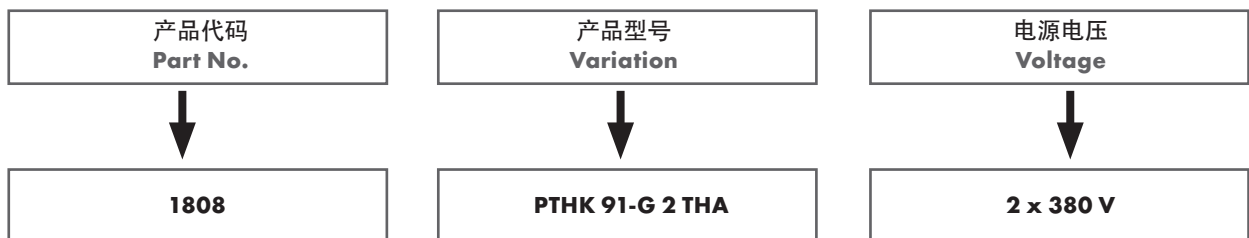
Voltage two-phase max.

*) 最多只能接两相电

Voltage two-phase max.

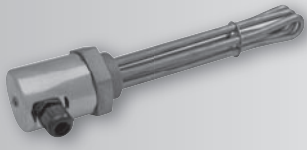
订货描述示例

ORDERING CODE

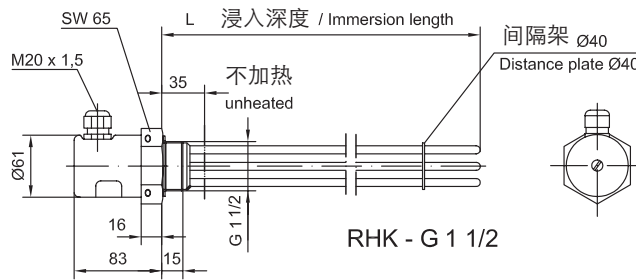


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A calculation programme for determination of the required tank heater is available at info@hbe-hydraulics.com



- RHK 型插入管式加热器用于预热液压油
- 镀锌的钢质端盖
- 要求水平安装于油面以下
- 材料: 钢 (其它材料请垂询)
- 加热液压油的表面功率为: 1.5 W/cm²
- 保护等级 IP 65
- 不同电源电压的配线图可垂询
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- Bright galvanized steel cap
- For horizontal mounting under oil level
- Material: Steel (further materials on request)
- Surface charge 1.5 W/cm² for hydraulic oils
- Protection IP 65
- Wiring schemes for different mains voltages on request

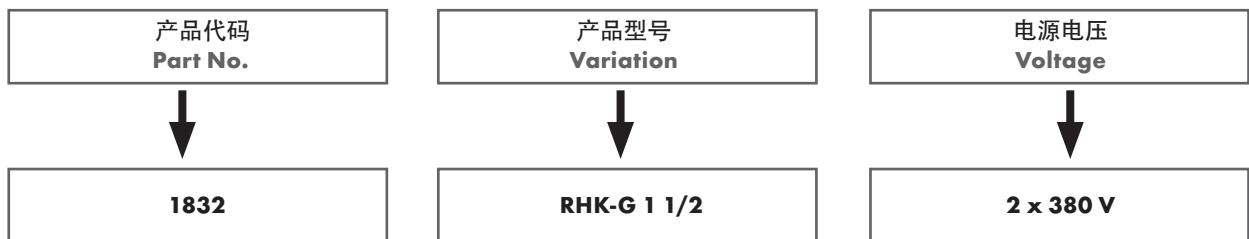


产品代码 PART NO.	产品代码 TYPE	加热功率 POWER (WATT)	浸入深度 L= IMM. DEPTH (mm)	电源电压 VOLTAGE (VOLT)
1830*	RHK-G 1 1/2"	380	200	请在订单中指定电源电压: In case of order please specify: Variante 1: 1 x 230 V Variante 3: 3 x 380 V Variante 2: 2 x 380 V Variante 4: 2 x 400 V Variante 5: 3 x 400 V
1832*		500	250	
1834		750	350	
1836		990	450	
1838		1450	650	
1840		1825	800	
1842		2300	1000	

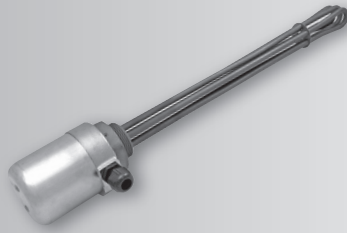
*) 最多只能接两相电 Voltage two-phase max.

订货描述示例

ORDERING CODE

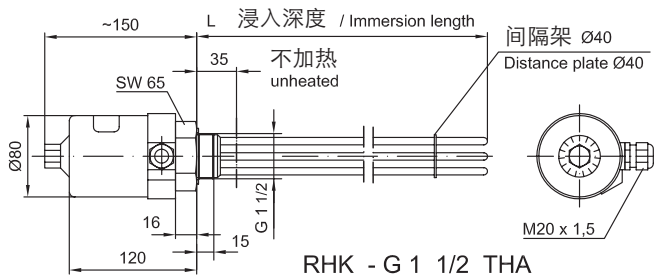


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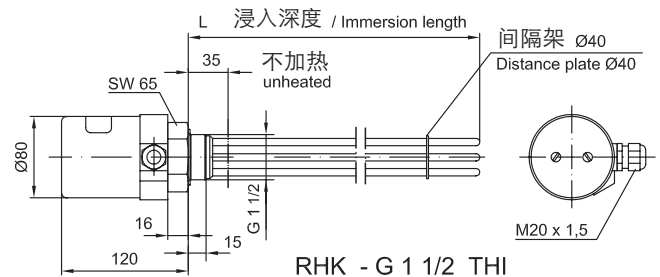


- RHK-TH 型插入管式加热器用于预热液压油
- 内置 (THI) 或外置 (THA) 的单相温控器: 0°C–85°C, 16 安培
- 镀锌的钢质端盖
- 要求水平安装于油面以下
- 材料: 钢 (其它材料可垂询)
- 加热液压油的表面功率为: 1.5 W/cm²
- 保护等级 IP 65
- 不同电源电压的配线图可垂询

- Tube screwed-in heater for preheating of hydraulic oil
- Temperature adjustment for internal (THI) and external regulation (THA), single-pole 0-85°C, 16 amp
- Bright galvanized steel cap
- For horizontal mounting under oil level
- Material: Steel (further materials on request)
- Surface charge 1.5 W/cm² for hydraulic oils
- Protection IP 54
- Wiring schemes for different mains voltages on request



RHK - G 1 1/2 THA



RHK - G 1 1/2 THI

产品代码 PART NO.	产品代码 TYPE	加热功率 POWER (WATT)	浸入深度 L= IMM. DEPTH (mm)	电源电压 VOLTAGE (VOLT)
1860*	RHK-G 1 1/2" THA (温控器外置) (external regulation)	380	200	请在订单中指定电源电压: In case of order please specify: Variante 1: 1 x 230 V Variante 3: 3 x 380 V Variante 5: 3 x 400 V
1862*		500	250	
1864		750	350	
1866		990	450	
1868		1460	650	
1870		1825	800	
1872		2300	1000	

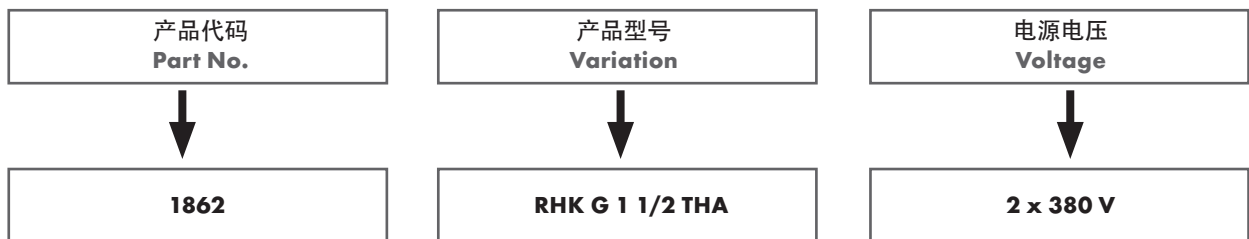
产品代码 PART NO.	产品代码 TYPE	加热功率 POWER (WATT)	浸入深度 L= IMM. DEPTH (mm)	电源电压 VOLTAGE (VOLT)
1861*	RHK-G 1 1/2" THI (温控器内置) (internal regulation)	380	200	请在订单中指定电源电压: In case of order please specify: Variante 1: 1 x 230 V Variante 3: 3 x 380 V Variante 5: 3 x 400 V
1863*		500	250	
1865		750	350	
1867		990	450	
1869		1460	650	
1871		1825	800	
1873		2300	1000	

*) 最多只能接两相电 Voltage two-phase max.

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订货描述示例

ORDERING CODE



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HBE 保留任何时候修改技术参数的权利

HBE reserves the right to modify technical data at any time.

- 钢质油箱, 不锈钢质油箱
- Oil tanks made of steel / stainless steel



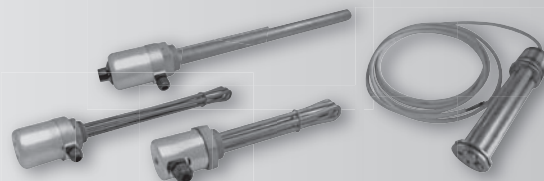
- 铝质油箱
- Oil tanks made of aluminium



- 清洗盖及其他油箱附件
- Cleaning covers and further accessories



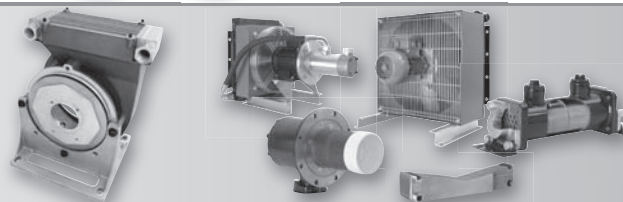
- 油箱加热器
- Tank heaters



- 钟形罩及其附件
- Bellhousings and accessories



- 钟形罩内置油冷却器
- 热交换器
- Bellhousing with oil-cooler
- Heat exchangers



- SOFTEX® 弹性联轴器, 无齿隙弹性联轴器
- SOFTEX® elastic and no backlash shaft couplings



- STAREX® 曲面齿联轴器, 内燃机法兰联轴器
- STAREX® flexible couplings



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