



OFFICINE MARIO DORIN SINCE 1918

**DORIN**<sup>®</sup>  
INNOVATION



## 2S-H 系列

SEMI-HERMETIC 2 STAGE MOTOR COMPRESSORS

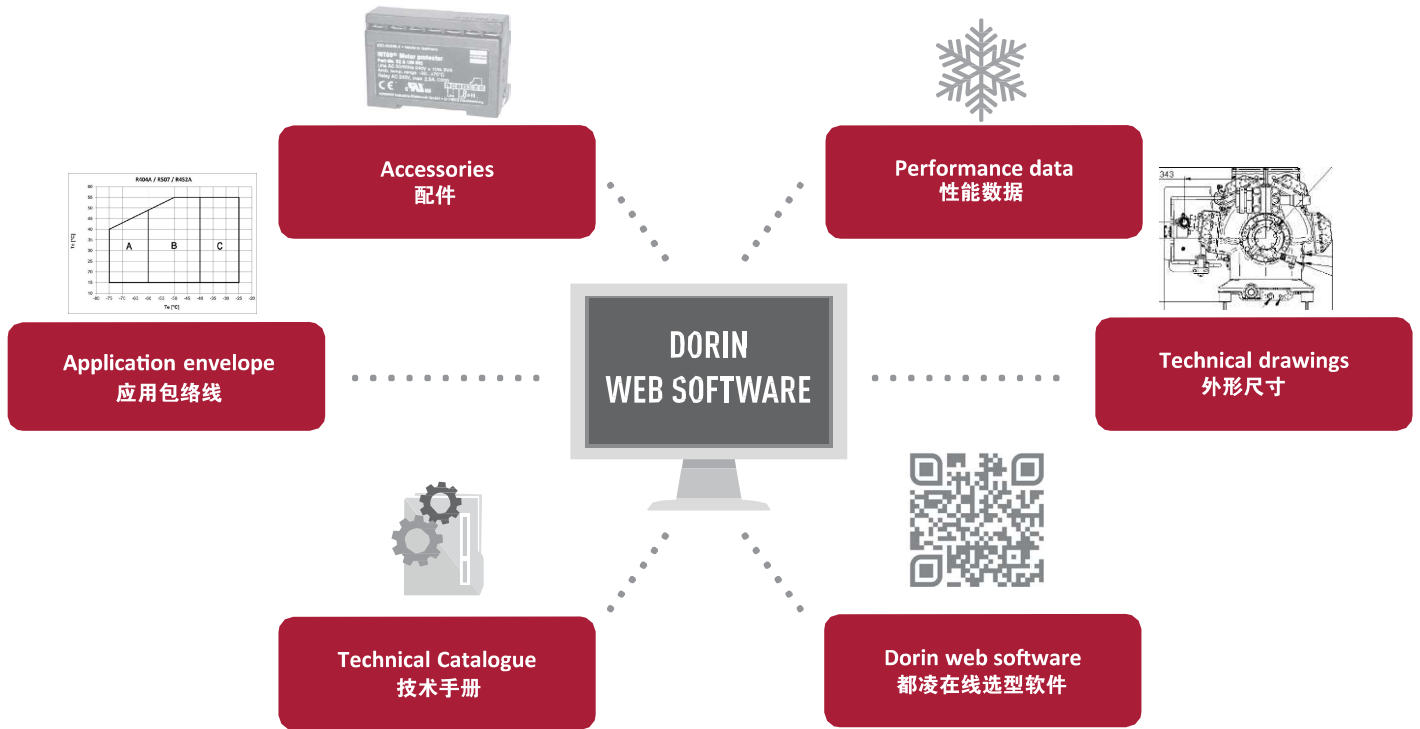
HFC/HFO APPLICATION - 50/60 Hz

半封闭双级压缩机系列  
HFC/HFO应用-50/60Hz



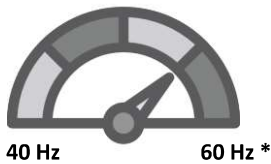
## DORIN Web Software

都凌（在线）选型软件



## Frequency Range

变频范围



\* Maximum operating frequency to be checked in the dedicated technical bulletin

\* 最大运行频率须参阅专门的技术手册

## Refrigerants in DORIN software (GWP - AR4)

Dorin都凌选型软件支持的制冷剂（GWP-AR4）

		SAFETY GROUP A1 安全分类A1			
LT 低温	R404A (3922)	R507A (3985)	R448A (1387)	R449A (1397)	
	R22 (1810)	R407F (1810)	R407A (1825)	R452A (2140)	
	R407H (1490)				

For all the refrigerants not available in the software please contact DORIN for the calculations

对于选型软件未涉及的制冷剂，请联系Dorin都凌技术人员获得相关性能数据。

## Factory certifications

都凌工厂认证

ISO 45001:2018

ISO 9001:2015

## Compressor certifications

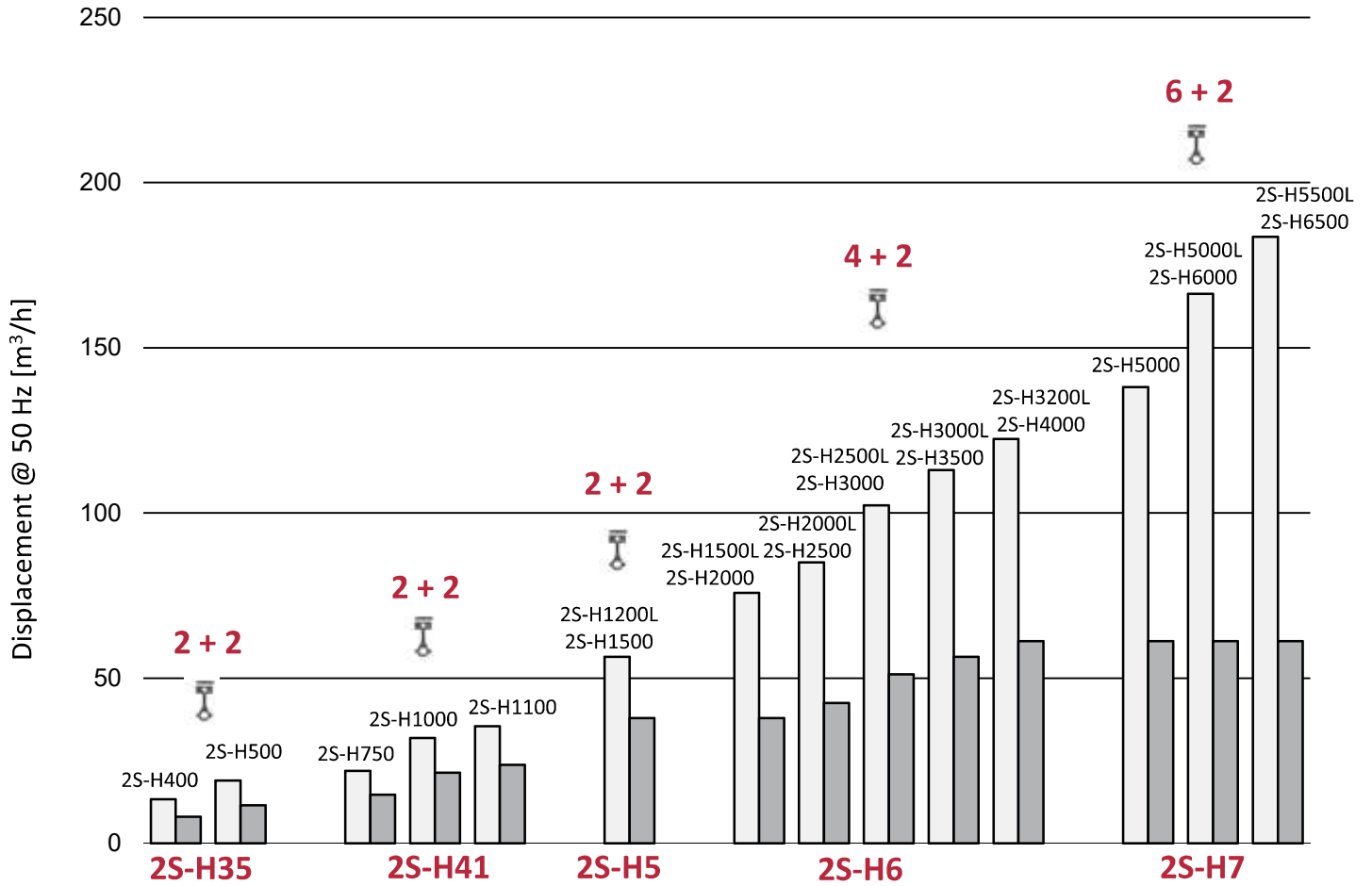
都凌压缩机认证



2S-H range - Displacement

2S-H系列-排量50Hz

2S-H RANGE



Model name

型号命名

2S-H	5000	L
RANGE 系列	HP * 100	MODELS ENDING WITH «L» ARE JUST FOR EXTRA LOW T AS INDICATED IN THE APPLICATION ENVELOPE 以《L》结尾的型号仅适用于应用包络线中所示的超低温度

Applications 2S-H SERIES

2S-H系列应用领域



Industrial Refrigeration  
工业制冷



Retail  
商超制冷



Logistic center  
物流仓储



Marine Application  
船舶应用

## 2S-H Series Features

### 2S-H系列技术特点



#### Silent operations and low vibrations

运行安静流畅，振动水平低

Crankshafts balanced individually, excellent fluid dynamics studies are our strengths  
曲轴能够独立平衡运转，这得益于我们出色的流体动力学研究



#### All models VFD compatible

所有型号可变频运行

Bore / Stroke values and motors with extra tolerance to high temperature allow wide frequency ranges  
电机、缸径、行程的配比使之可以实现宽频运行



#### Highest levels of efficiency

优异的运行效率

Using latest coating technologies for reducing frictions and improving lubrication  
采用最新的涂层技术来减少摩擦和改善润滑



#### Patented oil containment system for extra low oil carry-over for models with oil pump

专利认证的油气分离系统，可显著降低带油泵型号怕带油率

Higher system efficiency, less oil injections from the oil-separator for higher oil viscosity in the compressor sump  
更高的系统效率，油分离器中的润滑油量大幅减少，压缩机中油的粘度得以提高



#### 2 years standard warranty

两年标准质保



#### All compressors suitable for HFC

所有压缩机均适用于HFC制冷剂



#### Superlative COP at low and extra-low evaporating temperature

低温和超低温下都能获得最佳COP值

37 kW @ -40°C/+40°C R452A with 1,3 COP with the largest 8 cylinders: 2S-H6500  
8缸最大机型：2S-H6500，使用R452A制冷剂，制冷量可达37kW @ -40°C/+40°C，COP值达1.3

2S-H SERIES Technical Features

2S-H系列产品特点

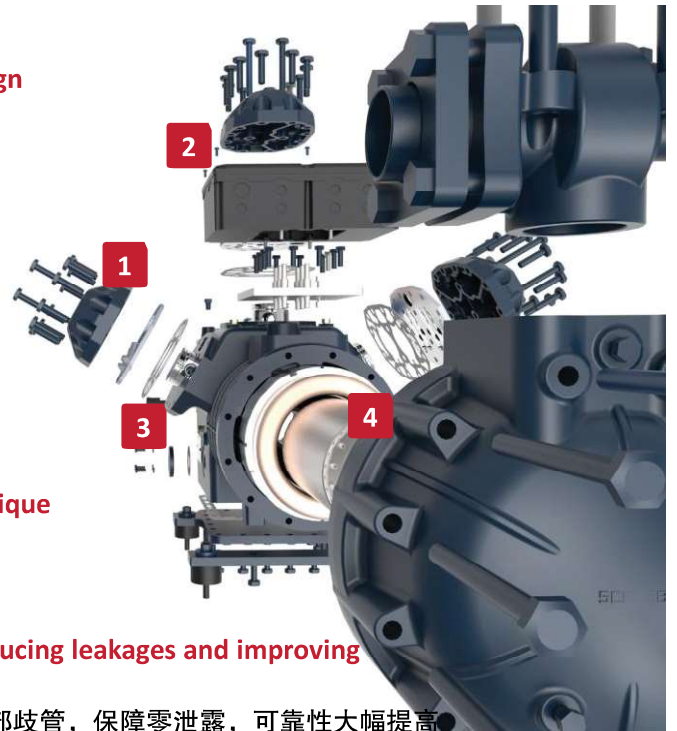
**1** Extra reliability and efficiency of optimised valve plate design  
最优化的阀板设计保证了可靠性和效率

**2** IP65 junction box  
防护等级IP65的电气接线盒

**3** Forced lubrication up to the wrist pin for the models with oil pump  
带油泵的型号，强制润滑到活塞销

**4** Proven reliability of the electric motor thanks to the unique resistance to high temperatures  
由于独特的耐高温设计，电机的可靠性得到了保证

**5** Innovative gas recirculation without external pipes, reducing leakages and improving reliability  
创新地将电机冷却气体通过内部通道送至两级间而无需外部歧管，保障零泄露，可靠性大幅提高

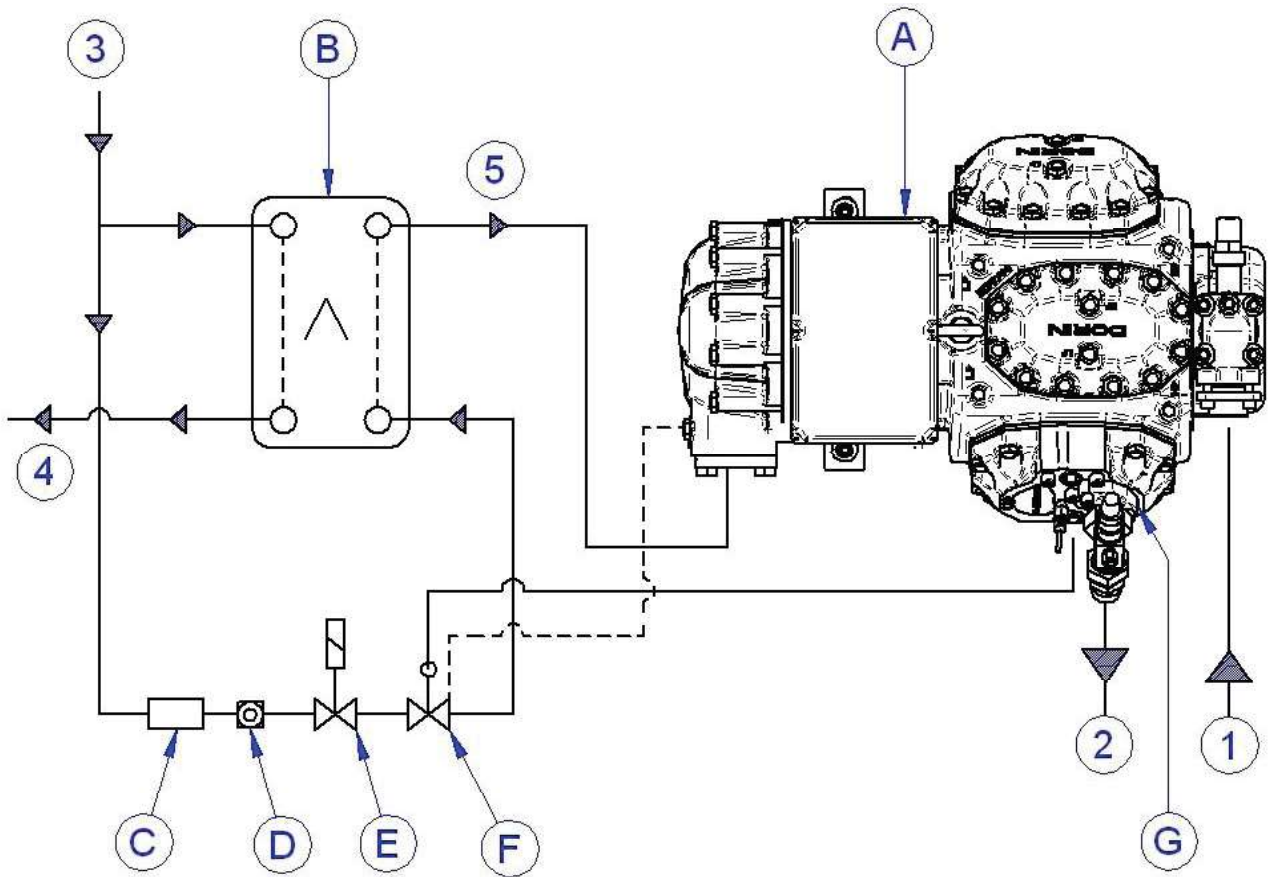


RANGE 系列	MODEL 型号	DISPLACEMENT 排气量		NUMBER OF CYLINDERS 缸数		OIL CHARGE 注油量	SUCTION 吸气	DISCHARGE 排气	NET WEIGHT 净重	MAX OPERATING CURRENT 最大工作电流	LOCKED ROTR CURRENT 锁定转子电流	MAX ABSORBED POWER 最大输入功率	
		LP	HP	LP	HP	[LITERS]	SL [mm]	DL [mm]	[kg]	380-420 / 3 / 50 440-480 / 3 / 60 PWS [A]		50 Hz [kW]	60 Hz [kW]
		m <sup>3</sup> /h											
2S-H35	2S-H400	13,32	8,10	2	2	2,0	22	18	93	10,5 *	53 *	6,2	7,4
	2S-H500	19,03	11,57	2	2	2,0	28	22	97	14,5 *	63 *	8,7	10,5
2S-H41	2S-H750	21,96	14,75	2	2	2,5	28	22	130	20	105	11,7	14,1
	2S-H1000	31,88	21,41	2	2	2,5	28	22	135	24	109	14,5	17,4
	2S-H1100	35,42	23,79	2	2	2,5	28	22	140	24	109	14,5	17,4
2S-H5	2S-H1200L	56,49	37,91	2	2	3,5	42s	28s	193	25	135	15,0	18,0
	2S-H1500	56,49	37,91	2	2	3,5	42s	28s	193	34	171	19,5	23,4
2S-H6	2S-H1500L	75,83	37,91	4	2	3,5	42s	35s	228	34	171	19,5	23,4
	2S-H2000	75,83	37,91	4	2	3,5	42s	35s	233	38	177	22,7	27,2
	2S-H2000L	85,01	42,51	4	2	3,5	42s	35s	237	38	177	22,7	27,2
	2S-H2500	85,01	42,51	4	2	3,5	42s	35s	237	48	203	28,5	34,2
	2S-H2500L	102,35	51,17	4	2	3,5	54s	35s	239	48	203	28,5	34,2
	2S-H3000	102,35	51,17	4	2	3,5	54s	35s	245	56	245	33,4	40,1
	2S-H3000L	112,97	56,49	4	2	3,5	54s	35s	249	56	245	33,4	40,1
	2S-H3500	112,97	56,49	4	2	3,5	54s	35s	253	60	260	35,9	43,1
	2S-H3200L	122,39	61,19	4	2	3,5	54s	35s	249	56	245	33,4	40,1
2S-H4000	122,39	61,19	4	2	3,5	54s	35s	262	72	290	43,7	52,4	
2S-H7	2S-H5000	138,15	61,19	6	2	8,5	66s	42s	362	90	367	52,9	63,4
	2S-H5000L	166,31	61,19	6	2	8,5	66s	42s	362	90	367	52,9	63,4
	2S-H6000	166,31	61,19	6	2	8,5	66s	42s	367	105	455	60,2	72,2
	2S-H5500L	183,58	61,19	6	2	8,5	66s	42s	362	90	367	52,9	63,4
	2S-H6500	183,58	61,19	6	2	8,5	66s	42s	365	105	455	60,2	72,2

\* Supply voltage Δ / Y - \* Alimentazione elettrica Δ / Y

2S-H SERIES Technical Features

2S-H系列产品特点



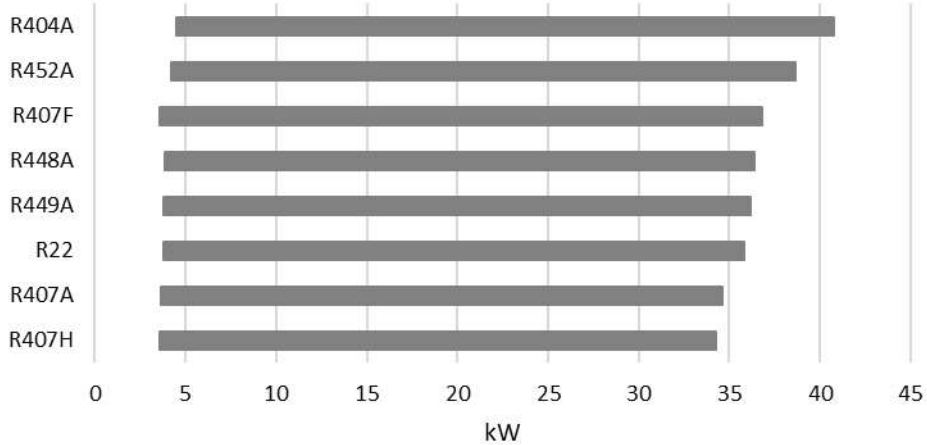
- A - Compressor - 压缩机
- B - Liquid subcooler - 中冷器
- C - Filter - 过滤器
- D - Indicator - 视液器
- E - Solenoid valve - 电磁阀
- F - Expansion valve - 膨胀阀
- G - Non return valve - 止回阀

- 1 - From Evaporator - 吸气阀
- 2 - To condenser - 排气阀
- 3 - From liquid line - 从液体管路
- 4 - To evaporator - 至蒸发器
- 5 - To II stage suction - 至二级压缩

2S-H SERIES Performance overview

2S-H系列性能概览

制冷量 Cooling capacity @-40/+40°C | 20 K SH | 0 K SB



Standard And Optional Accessories

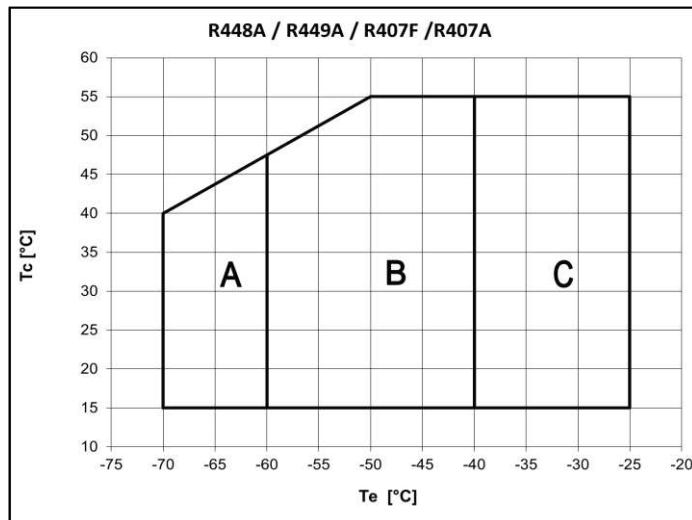
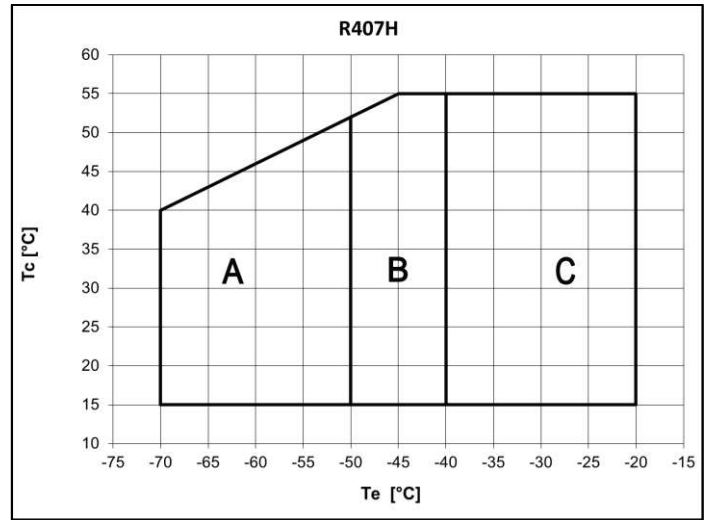
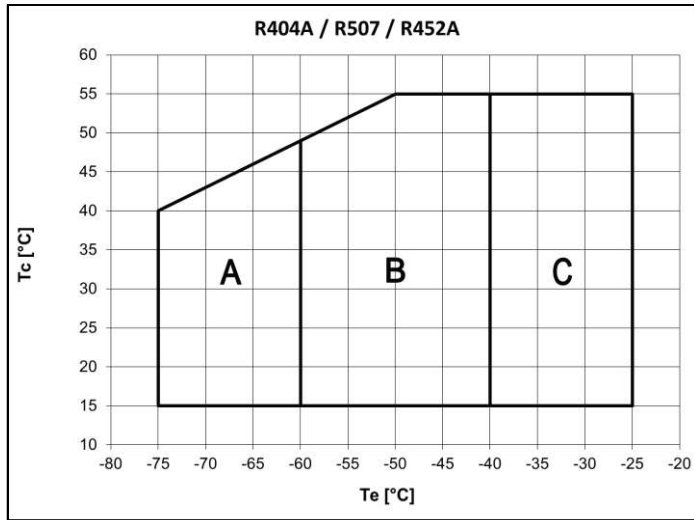
标配件和选配件



	MODEL 型号				
	2S-H35	2S-H41	2S-H5	2S-H6	2S-H7
<p>● STANDARD   ○ OPTIONAL 标配 选配</p> <p><b>Motor Protection (MT) / 电机保护</b></p> <p>The compressors are equipped with a PTC probe on every motor winding set at 120°C. The sensor requires an external protection module to read the signal from the probe (BT008)</p> <p>该系列压缩机每个电机绕组都装有一个PTC探头，设定在120℃，传感器需要一个外部保护模块来读取探头的信号。</p>	●	●	●	●	●
<p><b>Electronic Protection Module (REL) / 电子保护模块 (REL)</b></p> <p>Keeping under constant control winding temperature and discharge temperature (BT007)</p> <p>确保电机绕组温度和压缩机排气温度在允许温度内。(参见技术手册BT007)</p>	●	●	●	●	●
<p><b>Crankcase Heater (CH) / 曲轴箱加热器 (CH)</b></p> <p>The heater is 100 W up to 2S-H41 and 200 W up to 2S-H7 series (BT001)</p> <p>2S-H41及以下系列使用100W曲轴箱加热器，2S-H41以上的型号（不含2S-H41）使用200W曲轴箱加热器（参见技术手册BT001）</p>	●	●	●	●	●
<p><b>Self-regulating crankcase heater (TCH) / 自适应曲轴箱加热器 (TCH)</b></p> <p>Increasing the energy efficiency and reducing the warm-up time. The thermal regulated crankcase heater reduces the set temperature is reached. Depending on the working conditions there is up to 30% energy saving compared to the standard heater (BT001)</p> <p>(BT001)与传统加热器相比，自适应曲轴箱加热器可提高能效并减少预热时间。一旦达到设定温度，自适应曲轴箱加热器会降低输出功率。节能情况视不同工况而变，与传统的曲轴箱加热器相比，最多可节省30%的耗能。(参见技术手册BT001)</p>	○	○	○	○	○
<p><b>Maximum discharge temperature sensor (TMAX) / 最高排气温度PTC (TMAX)</b></p> <p>A thermistor probe is monitoring the discharge temperature to be kept below 130°C (BT007)</p> <p>PTC监控压缩机排气温度，确保其保持在130℃以下。(参见技术手册BT007)</p>	●	●	●	●	●
<p><b>Oil differential pressure switch (ODPS) / 油压差开关 (ODPS)</b></p> <p>Compressors with oil pump are equipped with an oil differential pressure switch set to 0,85 bar which must be connected in series with all other compressors protections (see BT007)</p> <p>带油泵的压缩机配备了一个油压差开关，设定在0.85bar的压差，油压差开关必须与所有其它保护装置串联连接（BT007）</p>	-	-	●	●	●
<p><b>Oil charge / 冷冻油充注</b></p> <p>All compressors are charged in the factory with POE or mineral oil before the mechanical and electrical running tests</p> <p>在进行机械和电气测试前，所有压缩机都已在工厂充注了POE或矿物油。</p>	●	●	●	●	●
<p><b>Subcooler kit / 中冷器组件</b></p> <p>All compressors 2S-H are sold with the liquid subcooler kit where the following components are included: subcooler, filter – indicator, solenoid valve, expansion valve. A non return valve is included in the compressor outlet to the condenser</p> <p>所有2S-H压缩机都标配液体过冷器组件，包括以下零部件：过冷换热器、过滤器—视镜、电磁阀、膨胀阀。压缩机排气阀处设置一个止回阀。</p>	●	●	●	●	●

Application Envelope

应用包络线



The application envelope changes depending on the compressor model and is available for every model and for every refrigerant in the DORIN web software  
应用包络线随压缩机型号变化并且可以在都凌选型软件查到

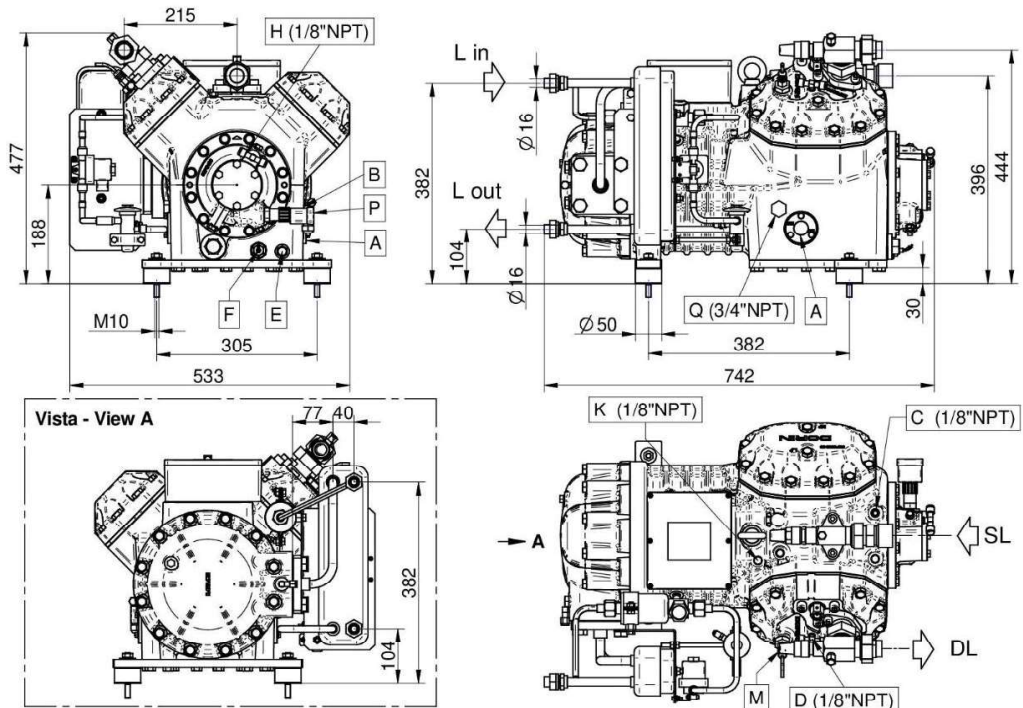
A	«L» MODELS ONLY / 仅限 «L» 型号
B	ALL MODELS / 所有型号可用
C	Standard model only / 仅标准型号可用



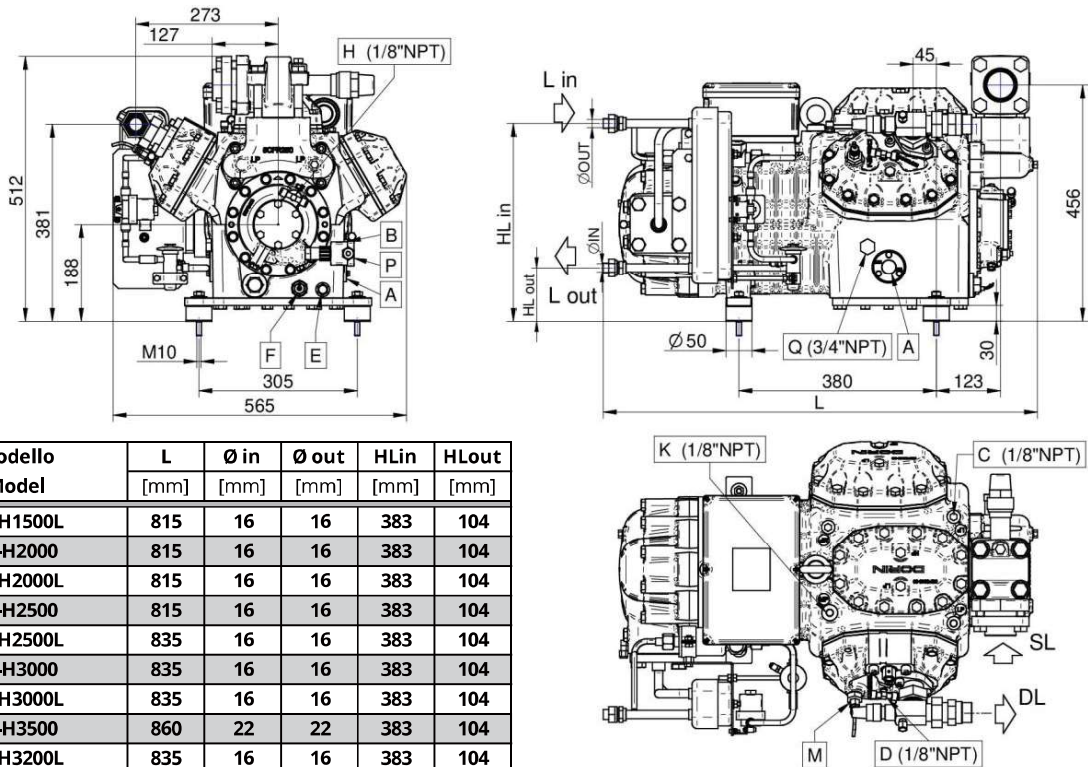
Technical Drawings

外形尺寸

2S-H5



2S-H6



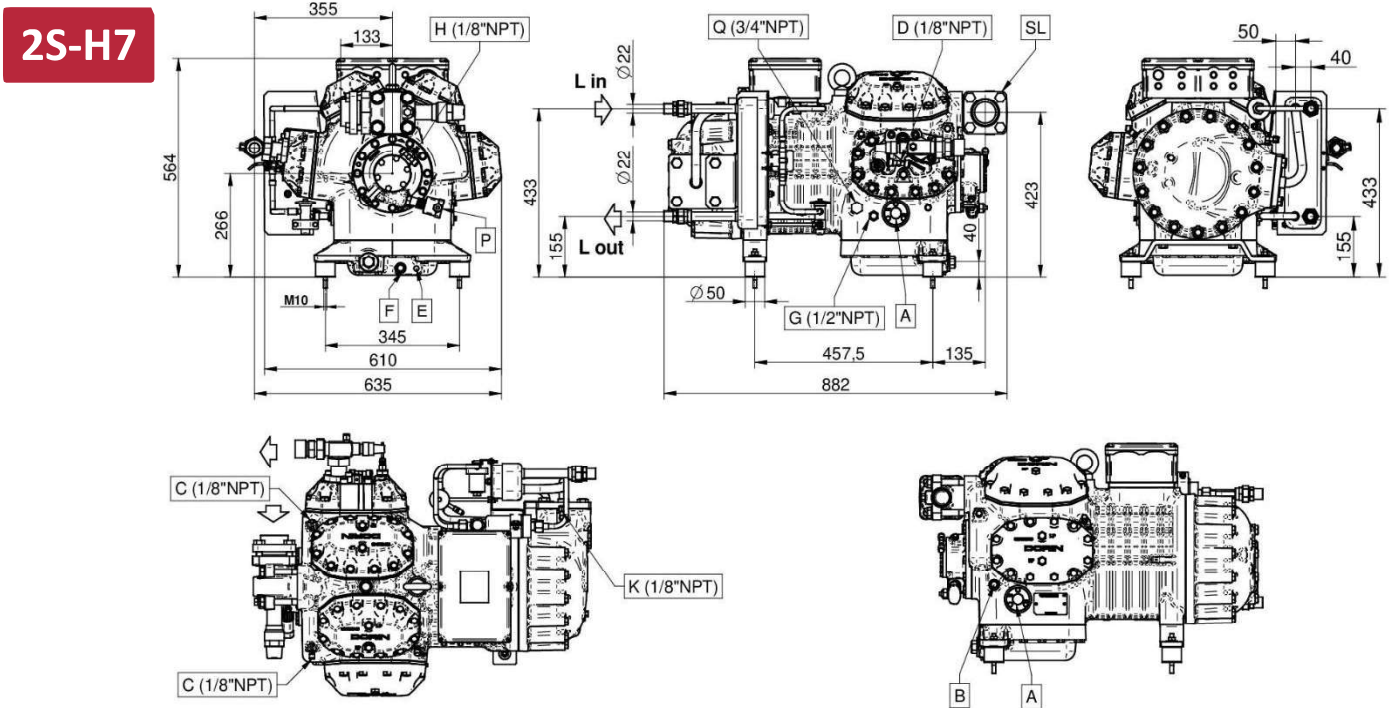
Modello Model	L	Ø in	Ø out	HLin	HLout
	[mm]	[mm]	[mm]	[mm]	[mm]
2S-H1500L	815	16	16	383	104
2S-H2000	815	16	16	383	104
2S-H2000L	815	16	16	383	104
2S-H2500	815	16	16	383	104
2S-H2500L	835	16	16	383	104
2S-H3000	835	16	16	383	104
2S-H3000L	835	16	16	383	104
2S-H3500	860	22	22	383	104
2S-H3200L	835	16	16	383	104
2S-H4000	860	22	22	383	104

- A – Oil sight glass - 油视镜
- B – Oil charge plug - 注油塞
- C – Low pressure tap - 低压旋塞
- D – High pressure tap - 高压旋塞
- E – Oil drain plug - 排油塞
- F – Crankcase heater - 曲轴箱加热器
- G – Oil return - 回油
- H – Oil pressure tap - 油压旋塞

- K – Intermediate pressure tap – 中压旋塞
- M – Maximum discharge temperature sensor – 最高排气温度传感器
- P – Oil pressure switch – 油压差开关
- Q – Gas equalization – 气体平衡
- DL – Discharge service valve – 排气阀
- SL – Suction service valve – 吸气阀
- Lin – Liquid inlet – 液体进口
- Lout – Liquid outlet – 液体出口

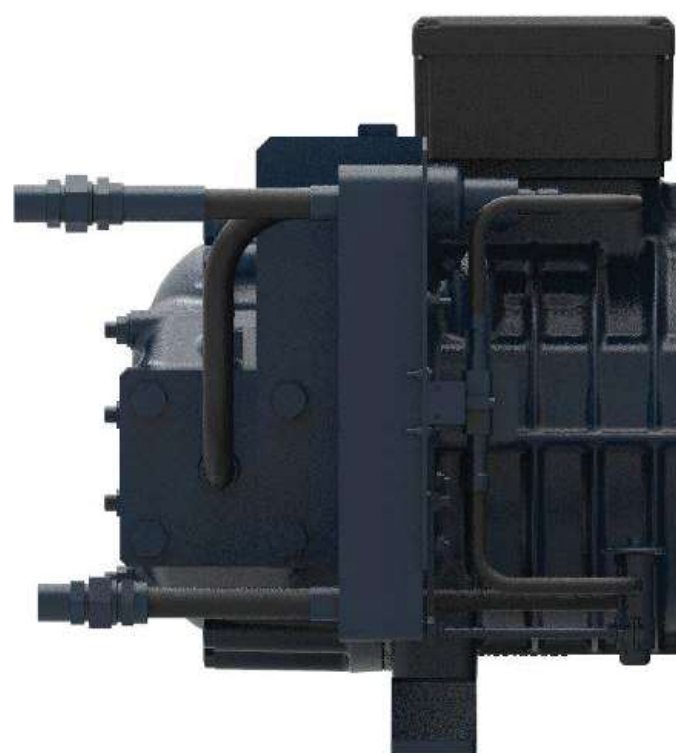
Technical Drawings

外形尺寸



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#### **DORIN WEB SOFTWARE**

Open the camera app on your device and point it at the QR code to scan it. Make sure that all the four corners of the QR code are in view. A pop-up notification will appear on your screen, tap the notifications to launch the code.

Dorin都凌在线选型软件  
扫描二维码，即可在线选型。



OFFICINE MARIO DORIN S.p.A.  
Via Aretina 388, 50061 Compiobbi - Florence, Italy Tel.  
+39 055 62321 1 - Fax +39 055 62321 380

[dorin@dorin.com](mailto:dorin@dorin.com)  
[www.dorin.com](http://www.dorin.com)

**全国统一服务电话：400-021-9890**