

RELIABLE COOLING PERFORMANCE

SEMI HERMETIC RECIPROCATING

CONDENSING UNIT

BOCK COMPRESSOR

LOW AND MEDIUM TEMPERATURE APPLICATION



AVAILABLE MODELS

Single Stage • Two Stage



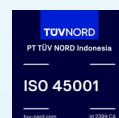
ENGINEERED
FOR RELIABILITY



BUILT FOR
PERFORMANCE



SERVICE
FRIENDLY DESIGN



CONDENSING UNIT

BOCK COMPRESSOR SINGLE STAGE

LOW AND MEDIUM TEMPERATURE APPLICATION



CONDENSING UNITS ARE AVAILABLE IN THE FOLLOWING CONFIGURATIONS:

Without condenser

With remote condenser

With condenser integrated within the base frame

Semi Hermetic CDU Bock – Single Stage

Engineered for stable and continuous operation in medium to low temperature refrigeration systems. Designed with a focus on reliability, robustness, and practical performance, this unit is suitable for demanding commercial and industrial cold room applications.

Standard Refrigerant: R404A

*R448A is available upon request



Efficient condensers :

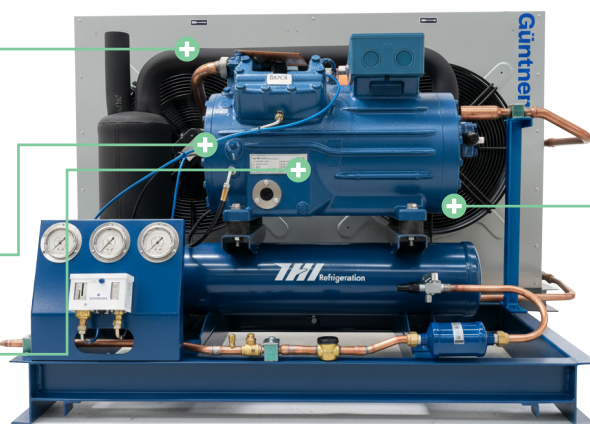
- Condenser in reliable fin-tube design
- One condenser for low and high ambient temperatures



Reliable and safe oil supply



Optimized drive gear : more resistant to lack of lubrication



Service friendly design :

- Easily to be replaced build-in motor due to slide fit (not press fit)

COMPONENTS (BILL OF MATERIAL)



Compressor



Oil Separator



Accumulator



Receiver Tank



Filter Drier



Sight Glass



Pressure Gauge



Pressure Switch



Oil Control



Ball Valve



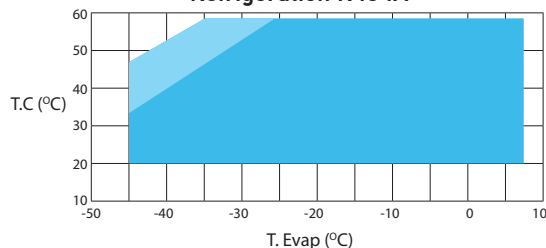
Solenoid Valve (Optional)



Check Valve

Application Envelope

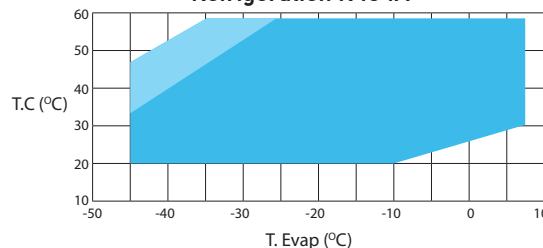
Refrigeration R404A



Legend:
T.C - Condensor Temperature
T. Evap - Evaporator Temperature
■ Unlimited application range
■ Supplementary cooling or reduced suction gas temperature (to <20K)

(SH090/HGX34e-380-4s)

Refrigeration R404A



Legend:
T.C - Condensor Temperature
T. Evap - Evaporator Temperature
■ Unlimited application range
■ Supplementary cooling or reduced suction gas temperature (to <20K)

(SH120/HGX44e-475-4s to SH300/HGX56e-995-4s)

Nomenclature

Condensing Unit Series
Semi Hermetic Compressor (SH)

SH

Horse Power

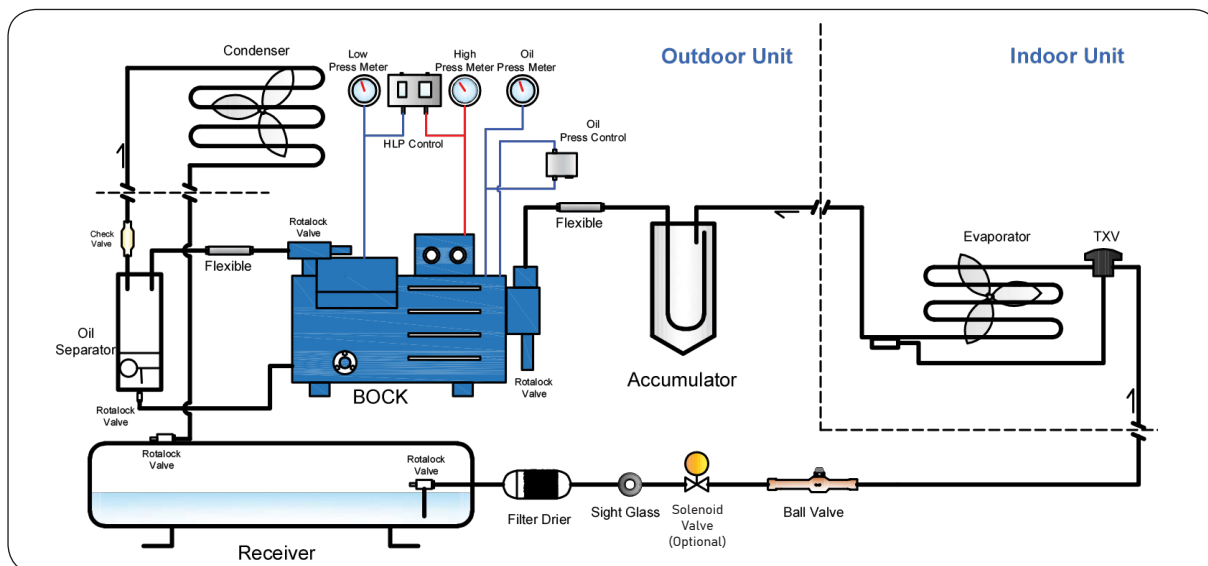
090

Compressor Type

HGX34e-380-4 S

Note : Specification and design are subject to change without prior notice.

Schematic Single Stage



Performance Data

R404a | 50 Hz

Single Stage Semi-Hermetic Condensing Unit

Model CDU	HP	Cond. Temp.	Cap.	Evaporating Temperature (°C)									
		°C	kW	-40	-35	-30	-25	-20	-15	-10	-5	0	5
SH090/HGX34e -380-4 S	9	45	Q	2.52	3.78	5.32	7.19	9.44	12.20	15.40	19.10	23.50	28.50
			P	2.93	3.68	4.44	5.22	6.00	6.75	7.47	8.13	8.73	9.25
		50	Q	1.98	3.12	4.49	6.17	8.19	10.70	13.50	16.90	20.90	25.50
			P	2.83	3.62	4.44	5.28	6.13	6.96	7.76	8.53	9.23	9.86
SH120/HGX44e -475-4 S	12	45	Q	3.23	4.90	6.89	9.27	12.20	15.70	19.80	24.70	30.50	37.30
			P	3.96	4.77	5.63	6.51	7.38	8.23	9.02	9.72	10.30	10.70
		50	Q	2.58	4.06	5.83	7.96	10.60	13.70	17.50	22.00	27.30	33.70
			P	4.02	4.84	5.72	6.64	7.58	8.51	9.40	10.20	10.90	11.50
SH150/HGX44e -565-4 S	15	45	Q	4.09	6.10	8.49	11.40	14.80	19.00	23.90	29.80	36.70	44.70
			P	4.69	5.66	6.68	7.72	8.76	9.77	10.70	11.50	12.20	12.70
		50	Q	3.29	5.10	7.23	9.78	12.90	16.60	21.10	26.50	32.90	40.40
			P	4.77	5.74	6.79	7.88	9.00	10.10	11.10	12.10	13.00	13.70
SH200/HGX44e -665-4 S	20	45	Q	4.42	6.72	9.47	12.80	16.80	21.60	27.40	34.20	42.30	51.70
			P	5.45	6.58	7.79	9.02	10.20	11.40	12.50	13.50	14.30	15.00
		50	Q	3.50	5.55	7.99	11.00	14.60	18.90	24.10	30.40	37.80	46.60
			P	5.53	6.68	7.92	9.22	10.50	11.80	13.10	14.20	15.30	16.10
SH250/HGX56e -850-4 S	25	45	Q	6.12	9.14	12.80	17.00	22.10	28.30	35.60	44.30	54.50	66.50
			P	6.97	8.42	9.95	11.50	13.00	14.60	16.00	17.30	18.30	19.20
		50	Q	4.92	7.63	10.90	14.70	19.30	24.80	31.50	39.40	48.90	60.10
			P	7.08	8.54	10.10	11.70	13.40	15.10	16.70	18.20	19.50	20.60
SH300/HGX56e -995-4 S	30	45	Q	6.25	9.75	14.00	19.20	25.40	32.80	41.50	51.90	63.90	77.80
			P	6.88	9.10	11.20	13.20	15.20	17.00	18.70	20.30	21.80	23.10
		50	Q	4.85	7.90	11.80	16.40	21.90	28.60	36.60	46.00	57.10	70.00
			P	6.32	8.77	11.10	13.40	15.50	17.60	19.50	21.40	23.00	24.60

Notes: Suction superheat 10 K ; Subcooling 0 K

Q = Cooling Capacity ; P = Electric Power

*Cooling capacity based on design condition followed bock compressor capacity.

CONDENSING UNIT

BOCK COMPRESSOR TWO STAGE

LOW TEMPERATURE AND ABF APPLICATION



CONDENSING UNITS ARE AVAILABLE IN THE FOLLOWING CONFIGURATIONS:

Without condenser

With remote condenser

With condenser integrated within the base frame

The Two Stage CDU with Semi-Hermetic Compressor

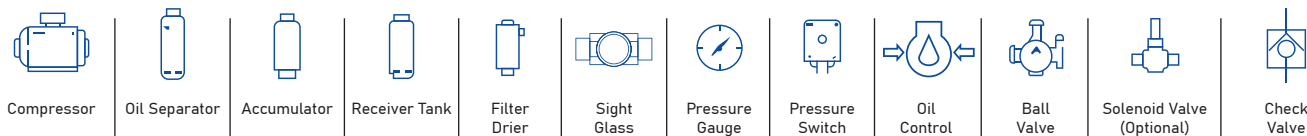
For extended use in Low Temperature, condensing units are available, equipped with two-stage compressors BOCK HGZX7.



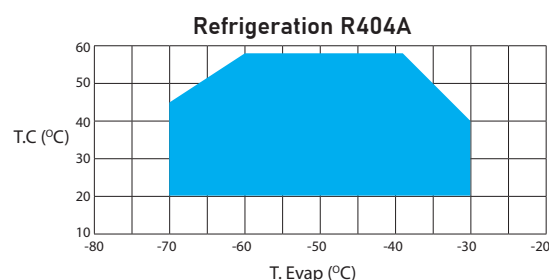
FOR 2-STAGE UNITS

- // Liquid subcooler
- // Mounted complete with TXV and solenoid valve

COMPONENTS (BILL OF MATERIAL)



Application Envelope



Legend:
T.C - Condensor Temperature
T. Evap - Evaporator Temperature

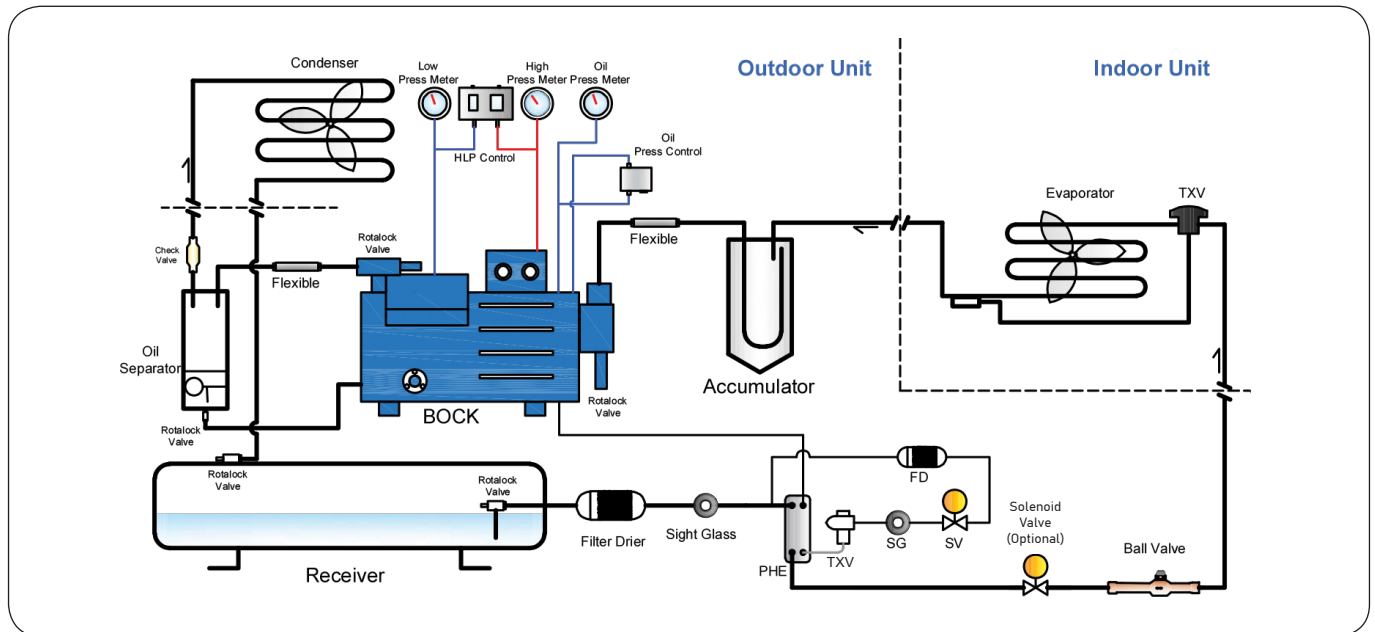
(SHT-300/HGZX7-1860-4S)

Nomenclature

Condensing Unit Series Semi Hermetic Compressor (SHT)	Horse Power	Compressor Type
↓	↓	↓
SHT	300	HGZX7-1860-4 S

Note : Specification and design are subject to change without prior notice.

Schematic Two Stage



Performance Data

R404a | 50 Hz

Two Stage Semi-Hermetic Condensing Unit

Model CDU	HP	Cond. Temp.	Cap.	Evaporating Temperature (°C)					
		°C	kW	-60	-55	-50	-45	-40	-35
SHT300/HGZX7 -1860-4	30	40	Q	10.40	13.20	16.60	20.60	25.50	31.40
			P	13.30	15.40	17.60	19.90	22.20	24.50
		45	Q	10.10	12.80	16.10	20.10	24.90	30.60
			P	13.90	16.10	18.50	20.90	23.30	25.70
		50	Q	9.57	12.30	15.50	19.40	24.10	29.70
			P	14.50	16.90	19.30	21.80	24.30	26.90

Notes: Suct. superheat 10 K; Subcooling 0 K

Q = Cooling Capacity ; P = Electric Power

*Cooling capacity based on design condition followed bock compressor capacity.

Standard Technical Specification Reference for SH Series Condensing Unit.

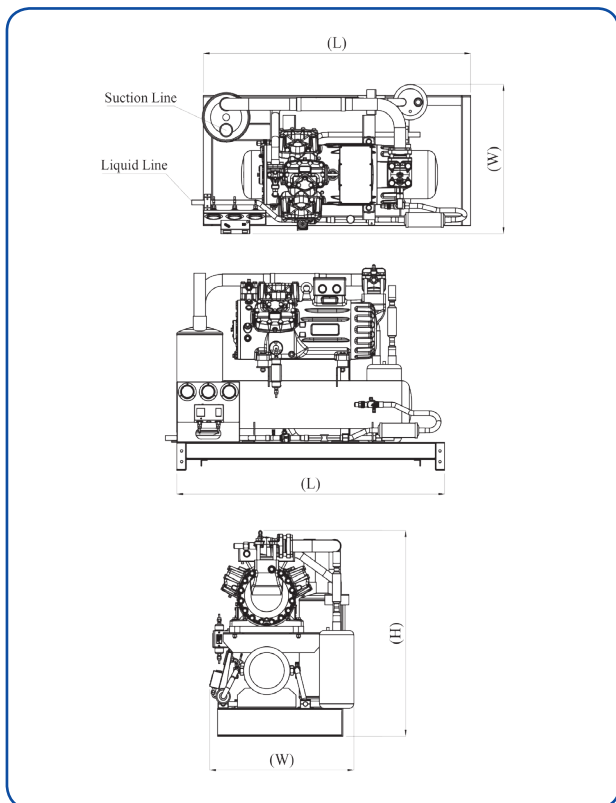
Model Name		SH090 /HG34e -380-4 S	SH120 /HG44e -475-4 S	SH150 /HG44e -565-4 S	SH200 /HG44e -665-4 S	SH250 /HG56e -850-4 S	SH300 /HG56e -995-4 S	SHT300 /HGZX7 -1860-4 S
Horse Power	HP	9	12	15	20	25	30	30
Voltage	V/Ph/Hz	380-420V / 3Ph / 50Hz						
Maximum Operating Current	A	31.2 / 18	23	26	30	39.4	46.4	55
Starting Current (Rotor Locked)	A	132Y / 76YY	87Y / 149YY	101Y / 174YY	101Y / 174YY	125Y / 209YY	149Y / 246YY	175Y / 269YY
Maximum Power Input	kW	11.1	13.1	15.6	18.3	23.5	27.7	30
Maximum Pressure (LP/HP)	Bar	19 / 28	19 / 28	19 / 28	19 / 28	19 / 28	19 / 28	19 / 28
Oil Type		POE						
Receiver Capacity	Litre	10	15	20	30	30	40	40
Suction Line	Inch	1 1/8	1 3/8	1 5/8	1 5/8	2 1/8	2 1/8	2 1/8
Discharge Line	Inch	7/8	7/8	1 1/8	1 1/8	1 1/8	1 3/8	1 3/8
Liquid Line	Inch	5/8	5/8	7/8	7/8	7/8	7/8	5/8
Weight (Without Condenser)	Kg	170	252	256	275	316	324	416

*All information is subject to change without notice

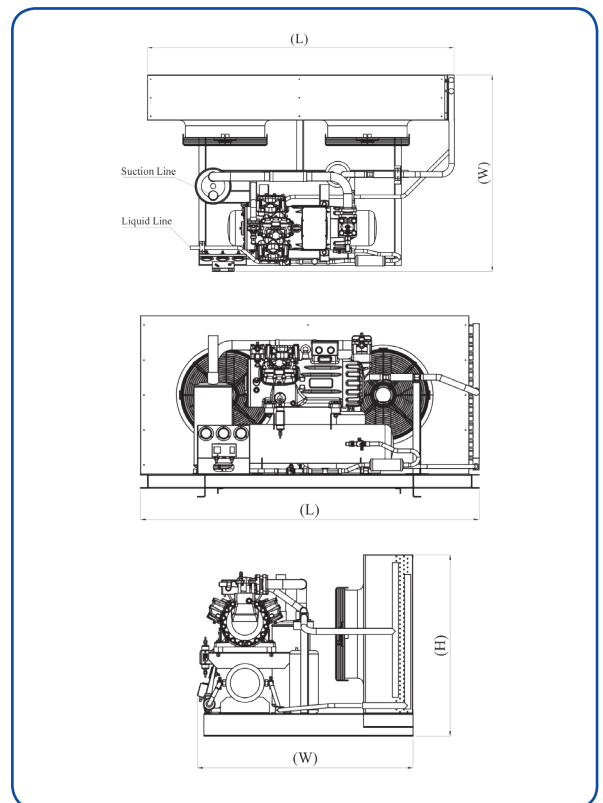
Dimension Condensing Unit

TYPE		With Condenser			Without Condenser			Piping Line	
		L	W	H	L	W	H	Suction	Liquid
SINGLE STAGE	SH-090/HGX34e-380-4S-IC G75	1075	1075	1037	1075	507	791	1 1/8"	5/8"
	SH-090/HGX34e-380-4S-IC G100	1640	1075	1037				1 1/8"	5/8"
	SH-090/HGX34e-380-4S-IC G120	1640	1075	1037				1 1/8"	5/8"
	SH-120/HGX44e-475-4S-IC G100	1640	1240	1037	1180	663	860	1 3/8"	5/8"
	SH-120/HGX44e-475-4S-IC G120	1640	1240	1037				1 3/8"	5/8"
	SH-120/HGX44e-475-4S-IC G150	1640	1240	1037				1 3/8"	5/8"
	SH-150/HGX44e-565-4S-IC G120	1640	1240	1037	1280	681	870	1 5/8"	7/8"
	SH-150/HGX44e-565-4S-IC G150	1640	1240	1037				1 5/8"	7/8"
	SH-150/HGX44e-565-4S-IC G200	1940	1240	1037				1 5/8"	7/8"
	SH-200/HGX44e-665-4S-IC G120	1640	1240	1037	1280	681	972	1 5/8"	7/8"
	SH-200/HGX44e-665-4S-IC G150	1640	1240	1037				1 5/8"	7/8"
	SH-200/HGX44e-665-4S-IC G200	1940	1240	1037				1 5/8"	7/8"
	SH-250/HGX56e-850-4S IC G200	1940	1240	1037	1280	681	954	2 1/8"	7/8"
	SH-250/HGX56e-850-4S IC G250	2450	1240	1037				2 1/8"	7/8"
	SH-250/HGX56e-850-4S IC G300	2915	1240	1037				2 1/8"	7/8"
	SH-300/HGX56e-995-4S IC G250	2450	1240	1037	1580	656	954	2 1/8"	7/8"
	SH-300/HGX56e-995-4S IC G300	2915	1240	1037				2 1/8"	7/8"
2 STAGE	SHT-300/HGZX7-1860-4S IC G250	2450	1415	1159	1180	831	1157	2 1/8"	5/8"
	SHT-300/HGZX7-1860-4S IC G300	2915	1415	1159				2 1/8"	5/8"
	SHT-300/HGZX7-1860-4S IC G350	3210	1415	1159				2 1/8"	5/8"

Dimension Without Condenser

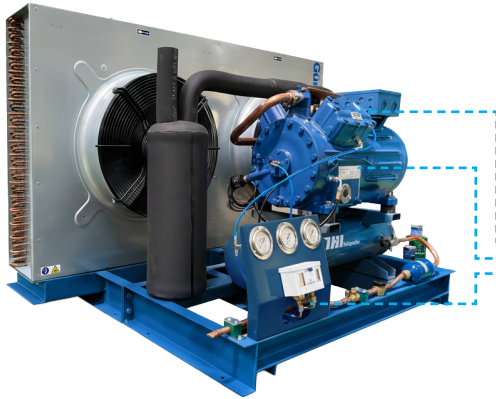


Dimension With Condenser

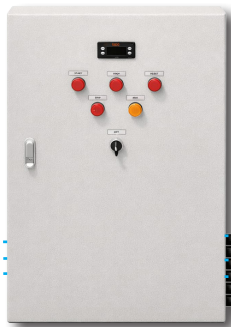


Control Panel – Bock Condensing Unit

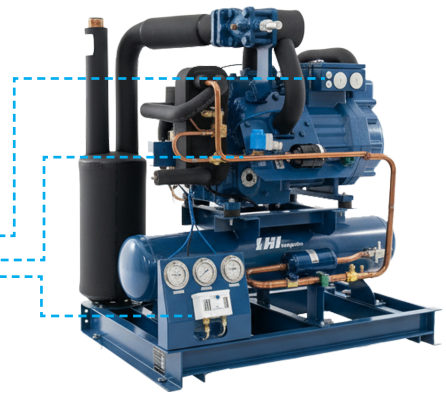
Optional (By Request)



SINGLE STAGE WITH PANEL CONTROL



OR



TWO STAGE WITH PANEL CONTROL

Electrical Specification

- Power Supply : 380–415V / 3Ph / 50Hz
- Control Voltage : 230V AC
- Protection Class : IP54
- Standard : IEC / EN

Optional Components

Controller / Thermostat
Inverter (Compressor or Condenser Fan)

Standard Components

- Circuit Breaker
- Magnetic Contactor
- Phase Failure Relay
- Terminal Block
- Alarm Indicator Lamp
- ON / OFF Selector Switch



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