

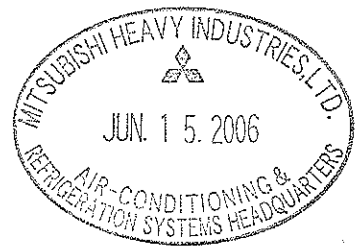


Individual Model
Specifications

Reciprocating Compressor

[Model No. CB40]

Part No. AAD201A004C 








APPROVED

H. Machida


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99. 9.14

			
			
			
			
			
A	PA-C-1030	06. 6. 7	H. Machida
訂符 MARK	訂番 REV.NO.	年月日 DATE	点検 CHKD

MITSUBISHI HEAVY INDUSTRIES, LTD.

SPEC. NO. ESP-PA-5980	REV. 	PAGE 1/4	DISTR. XX	SIZE A4=1-4
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1. Scope

This INDIVIDUAL MODEL SPECIFICATIONS applies to model **CB40**
(3-Ph, 346-415V~ 50Hz) of M.H.I Hermetic reciprocating Compressors.

The general matter and the application standards of all reciprocating compressors comply with the CB series application standard. (ESP-PA-5980 4/4)

2. Range of Production

A The products are as shown below.

(1) Compressor

Part Name	No. Req	Part No.	Drw. No.
Compressor	1	AAD201A004C	AAD000Z006

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(2) Electrical Parts

Part Name	No. Req	Part No.	Drw. No.
Over Current Relay	1	SSA522B028	ASA000Z113
Crank Case Heater	1	ASA541B020A	ASA000Z228

(3) Accessory Parts

Part Name	No. Req	Part No.	Drw. No.
Terminal Cover	1	AAD947K003	AAD000Z069
Screw (Terminal Cover)	1	H051D05X020	AAC000Z046C

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(4) Mounting Parts

Part Name	No. Req	Part No.	Drw. No.
Comp. Mounting Detail	—	—	AAD000Z074
Rubber, Cushion	4	SSA941C103	ASA000Z548

(5) Wiring Diagram and Performance Curve

Part Name	Drw. No.
Wiring Diagram	AAD000Z068
Performance Curve of Compressor 380V 50Hz	AAD000Z086



3. Individual Specifications 【 Model No.CB40 】

(1) Compressor Data

No. of Cylinder	2	Cylinder Diameter	55 mm
Stroke	16.4 mm	Displacement	77.9 cm ³
Refrigerant	R 22	Refrigerant Charge	4 kg(max)
Oil	BARREL FREEZE 32SAM	Oil Charge	1800 cm ³
Weight (incl. oil)	41.2 kg	Compressor Cooling	Natural Air Draft



(2) Rated Performance*1

Power Source	3-Ph 346-415V~ 50Hz
Capacity (±7%)	10280 / 10500 W
Motor Input (±7%)	3400 / 3460 W
Rated Load Amperes (±10%)	6.4 / 6.1 A
C.O.P (±7%)	3.02 / 3.03

*1 Rated Conditions:ASHRAE-T

Evaporating temp.	7.2°C
Condensing temp.	54.4°C
Suction gas temp.	35.0°C
Liquid temp.	46.1°C
Ambient temp.	35.0°C

(3) Motor Data

Motor Type	3-Ph, 2-Pole, Induction Motor
Starting Method	IR
Rated Power Supply	3-Ph, 346-415V~ 50Hz
Rated Output	2.5 kW
Insulation Class Rating	Class-E
Resistance of Winding [at.20°C]	3.39 Ω
Starting Current [415V 50Hz]	55.9 A

(4) Over Current Relay Data

Trip Current	12.9 A
Non Trip Current	10.8 A



(5) Crank Case Heater Data

Rated Power Supply	240 VAC
Rated Output	50 W

(6) Internal Thermostat Data

Open Temperature	90±5 °C
Close Temperature	73±7 °C



CB Series Application Standard

When using the compressor, the following standards should be followed.

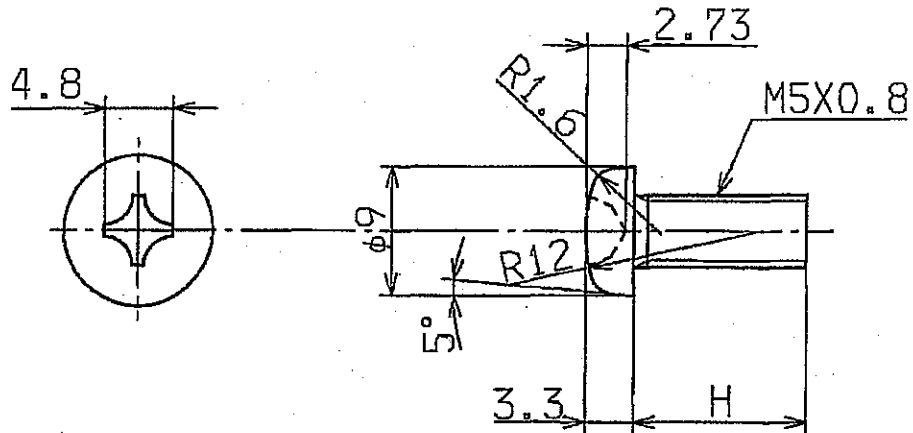


	Item	Limits
1	Refrigerant	R22
2	Evaporating temp.	-30°C~12°C(0.07~0.63MPa).
3	Condensing temp.	30°C~68°C(1.10~2.75MPa).
4	Compression ratio	8 max.
5	Motor winding temp.	105°C max. in resistance method. (It becomes less than 105°C by internal thermostat.)
6	Shell bottom temp.	90°C max. Saturated temp. of evaporating pressure plus 20degC min.
7	Discharge gas temp.	140°C max.
8	Voltage (running)	Within $\pm 10\%$ of the rating at compressor terminal.
9	Start up voltage	Starting voltage shall be more than 85 % of rated voltage measured at compressor terminal.
10	On-Off cycle	12 minutes min./cycle. Off time should be more than 3 minutes. Start-up should be at balanced pressure on high-low pres. sides, but 0.79MPa max. high-low pressure difference is allowed.
11	Refrigerant charge limitation	4kg max. In this case have no use crankcase heater and accumulator. When charging above this limit, crankcase heater and accumulator must be used. The accumulator volume should be equal to the unit charging volume.
12	On-Off frequency	Less than 100,000 times.
13	Oil hold limit	790 cm ³ (Lower limit at running condition)
14	Electrical components ambient temp.	55°C max.
15	Tilt angle of comp.	5 degrees max. in any direction.
16	Moisture content	Moisture content of the compressor is controlled at 300mg max. when shipped from the factory. However, Moisture content circuit shall be 80ppm max. at 60°C ambient temperature.
17	Contaminants content	Contaminants content of the compressor is kept under 50mg when shipped from the factory. Contaminants content (metal particles, lint, sand, flux, etc.) should not exceed 0.2g/m ² in the refrigerant system.
18	Non-condensable gas content	The non-condensables that are extracted from the gas phase of the low pressure side should be held to the ratio 1% or less in terms of volume. To achieve such a state the vacuuming of ref. circuit should be done to about 26.7Pa(0.2 mm Hg).

General Cautions

- (1) Do not keep the compressor open for more than fifteen minutes.
- (2) Do not use the compressor for the vacuum evacuation of the refrigerant circuit.
- (3) Do not allow compressor to suck in and compress air.
- (4) Do not apply current to the compressor in a vacuum condition.
- (5) Do not tilt or drop compressor during transportation.
- (6) Do not damage the compressor paint coating.

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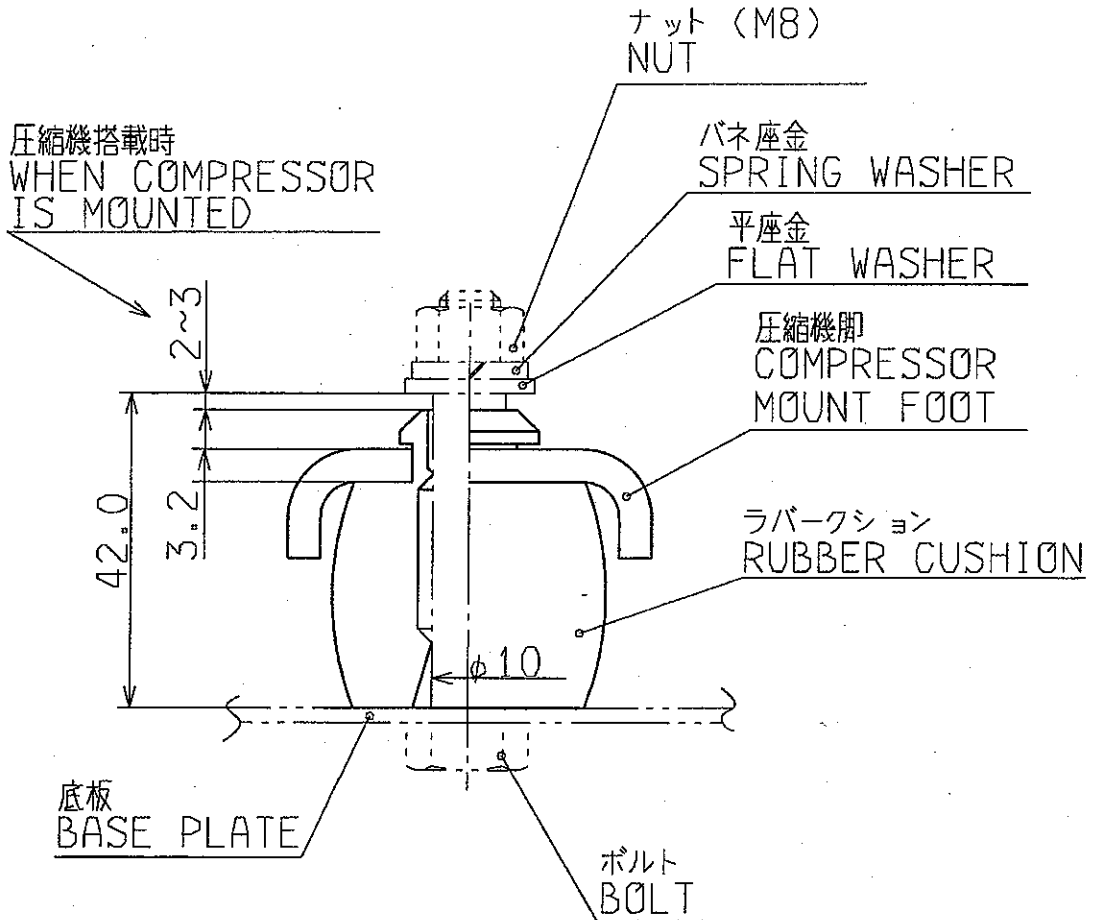
図番 DWG. NO.	H	材料 MATERIAL	部品番号 PART NO.
AAC000Z046	12	SWRM10~15 ｽｽ(OR)	H051D05X012
	A 8	SS41, S10C~S20C	H051D05X008
	B 8	C3604BD ｽｽ(OR) C2700V-1/2H	H051E05X008
	C 20	SWRM10~15 ｽｽ(OR) SS41, S10C~S20C	H051D05X020

業別極サイズ

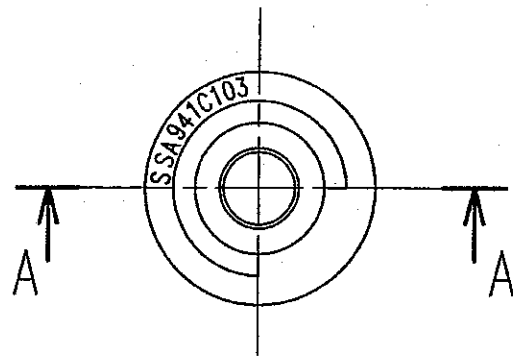
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A		AAC1007	98.10.30	森	ターミナル スクリュー	2=1 CA					特別配布先
森		西本 広		吉田	SCREW, TERMINAL						1 S, S, 1
岡田 セ				570629							2 A, C, 1
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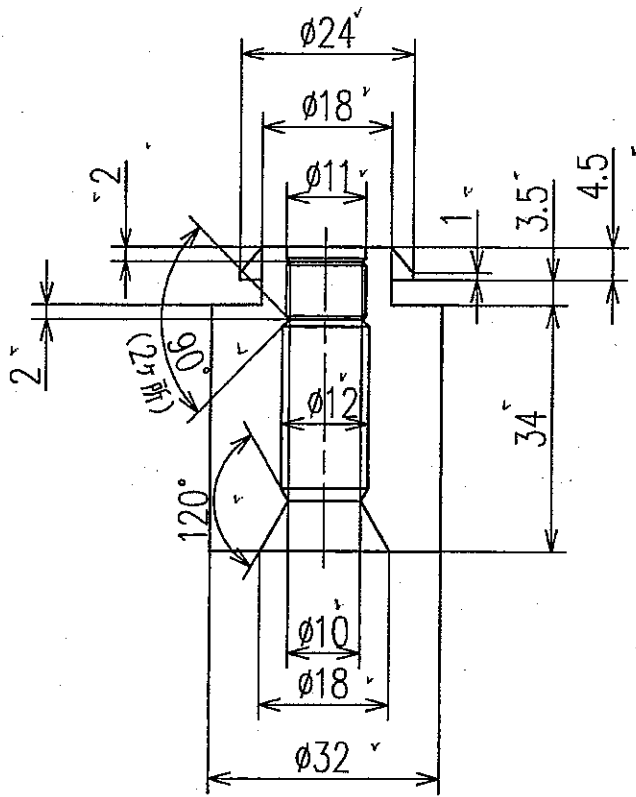
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				尺度SCALE	形式MODEL	親部番NEXT ASSY	業別毎サイズ
				X	CB		特別配布先
A	AAD1463	02.11.18	影山	コンプ マウンティング デテール			1 S, N, 1
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認可 APPD	検図 CHKD	製図 DRAWN	名 称 NAME	CAD			3
伊 藤	本 田	吉 田	図 種	MOUNTING DETAIL, COMP			4
		60.123	図 番 DWG NO.	ZAAD000Z074 ~			5
			品 別 SUFFIX	訂 入 符 REV. MARK	業 別 PAGE	標 準 配 布 ST. DISTR.	6
				/A	1/1	XX	7
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A-A



部品番号 PART NO.	SSA941C103
材料 MATERIAL	クロロプレノゴム (RBC6105B14C12G21) ✓ CHLOROPRENE RUBBER

寸法
DIMENSION : mm

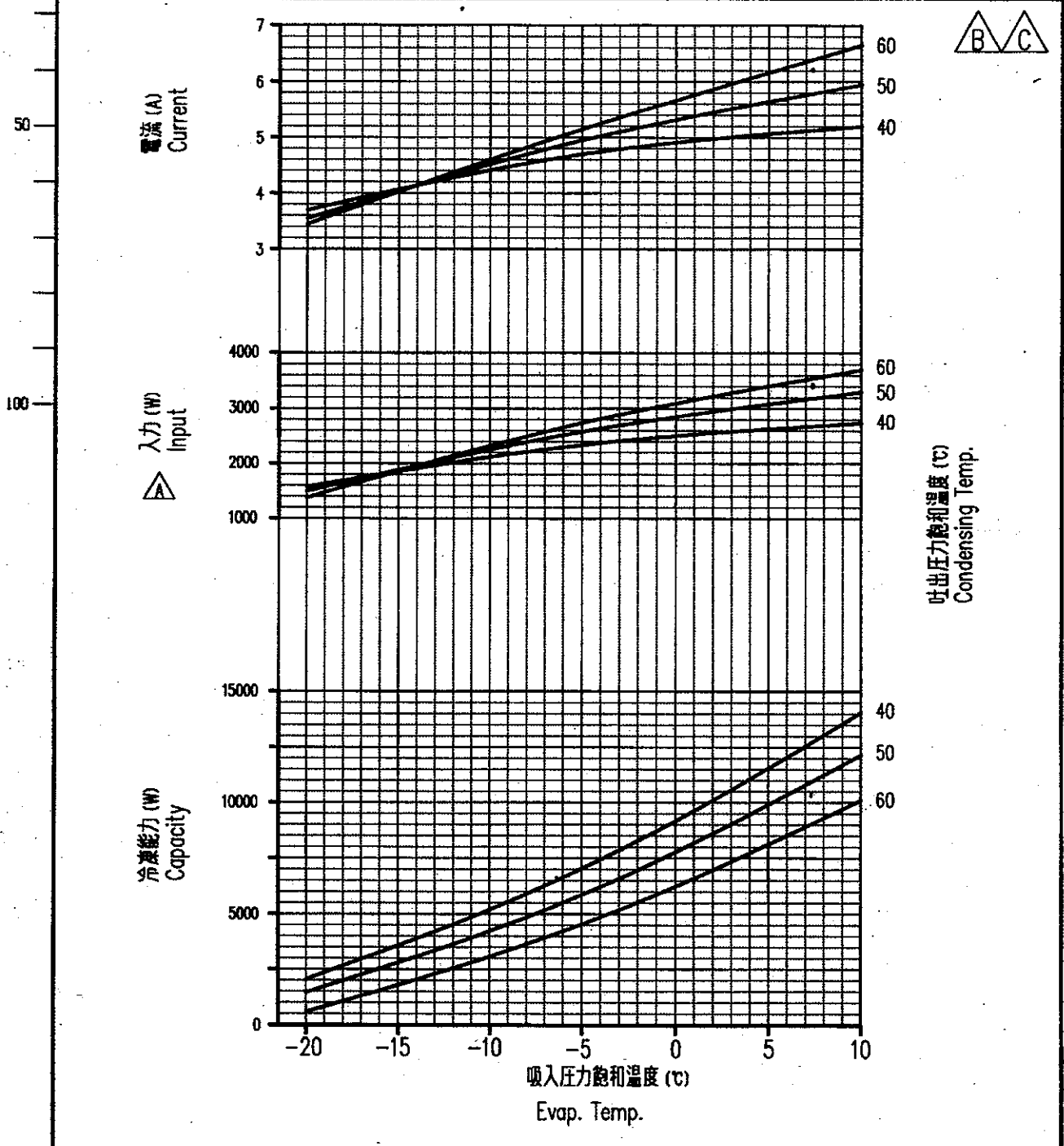
業別毎サイズ

訂符 MARK		訂番 REV. NO.	年月日 DATE	点検 CHKD	尺度 SCALE	形式 MODEL	親部番 NEXT ASSY	特別配布先
					X	CB		1 SS,1
訂符 MARK		訂番 REV. NO.	年月日 DATE	点検 CHKD	名称 NAME	ラバークッション CUSHION, RUBBER		AUT
認可 APPD		検図 CHKD	製図 DRAWN	図種	図番 DWG NO.	品別 SUFFIX	訂入符 REV. MARK	業別 標準配布 ST. DISTR.
水野		町	五反		ZASA000Z548		1/1	XX
			06.5.31					

三菱重工業株式会社 冷熱事業本部
MITSUBISHI HEAVY INDUSTRIES, LTD.

11 翻訳 E A4

壓縮機形式 Compressor Model No.	CB40	過冷却 Sub Cooling	5 degC
定格電源 Power Source	3Ph, 380V, 50Hz	周囲温度 Ambient Temp.	35 °C
過熱度 Super Heat	10 degC	壓縮機冷却 Compressor Cooling	自然通風 Natural Air Draft



訂符 MARK	訂番 REV. NO.	年月日 DATE	点検 CHKD	名義 NAME	パフォーマン スカーブ CURVE, PERFORMANCE	AUT	特別配布先
認可 APPD	検図 CHKD	製図 DRAWN	図番 DWG NO.	品別 SUFFIX	訂入符 REV. MARK	頁別 PAGE	標準配布 ST. DISTR.
T. Itoh H. Honda	M. Hirose	S. Yoshida 85.6.6	Z AAD000Z086~	/C	1	1	XX

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