



DATE : 2019. 01. 17
REV. : 0

MARINE TYPE
PACKAGED AIR CONDITIONER

FOR APPROVAL DWG

EQUIPMENT CODE	M P - G 10 H F 3
SPECIFICATION CODE	F A R G G 1
HULL NO.	-
YARD	-
SERVICE SPACE	-
QUANTITY / SHIP	1 PER SHIP

CENTURY CORPORATION

Postal address

854, Eumbong-Ro, Tangjeong-Myeon
Asan-Si, Chungnam South Korea 31458

Facsimile

82-41-420-8018

Telephone

82-41-420-8008, 8028

INDEX

1. General specification ----- 1.1

2. Machinery specification ----- 2.1

3. Particulars of machinery ----- 3.1

4. Supply scope ----- 4.1

5. Drawings ----- 5.1

- Piping diagram
- Outline dimension drawing for packaged air conditioner

1. General Specification

1.1 Cooling system : R-404A direct expansion cooling system.

1.2 Electric power source

Main circuit : AC 3Ph, 440V, 60Hz

Control circuit : AC 1Ph, 220V, 60Hz

1.3 Safety devices

Over-current relay

Internal thermostat for compressor

Dual (High/Low) pressure switch

Fusible plug (Melting temperature $72 \pm 2^\circ\text{C}$)

1.4 Finish painting color : Munsell No. 7.5 BG 7/2

1.5 Guarantee : 12 months after the delivery of the ship

1.6 Cooling water : 36°C (FRESH WATER)

1.7 Operation

Cooling system is regulated automatically by the thermostat sensing the intake air temperature.

But the automatic regulation is effected by a pressure switch in case of too high or too low R-404A pressure and by the over current relays for compressor and fan motor.

1.8 Installation

Group starter and thermostat is installed in the machinery unit.

Main power should be installed only by yard.

2. Machinery specification

- 2.1 Model : MP - G 10 H F 3
- 2.2 Cooling capacity : 34.9 kW (30,000 kcal/h)
- 2.3 Heating capacity : - kW (- kcal/h)
- 2.4 Supply air volume : 88 m³/min.
- 2.5 External static press. : - mmAq
- 2.6 Cooling water consumption : 11.58 m³/h
- 2.7 Cooling water pressure drop : 6.0 mAq (60 kPa)
- 2.8 Cooling water piping connection : JIS 5K 40A FLANGE
- 2.9 Outer dimensions
- Width : 1,400 mm
 - Depth : 580 mm
 - Height : 1,950 mm
- 2.10 Weight(abt.) : 440 kg
- 2.11 Wire connection : "JIS" type Cable gland
- For main power : 25c x 1 EA
 - For pump inter lock : 15c x 1 EA
- 2.12 Air supply method : GRILLE - TOP
- 2.13 Air intake method : GRILLE - FRONT
- 2.14 Piping direction for Cooling water : RIGHT
(Based on front view)

3. Particulars of machinery

3.1 Standard part list

NO.	PART NAME	SPECIFICATIONS	Q'TY/UNIT
1	COMPRESSOR	Type : Hermetically sealed reciprocating type Model : MTZ100-4 Motor nominal input : 10.1 kW (at evaporating temp. 7.5°C, condensing temp. 44°C) Motor synchronous : 3,500 rpm Index of protection : IP 54 Crankcase heater : PTC 27 Watts Oil charge : 3.90 Liters Oil type : Polyolester (POE-160PZ) Capacity control : 0% , 100% Maker : DANFOSS-MANEUROP	1
2	CONDENSER	Type : Water cooled shell and finned tube type Material : Tube - COPPER TUBE Tube plate - SS400 / GALVANIZED COATING Shell - Steel End cover - Cast iron with epoxy painting Maker : CENTURY CORPORATION	1
3	EVAPORATOR	Type : Multi-pass cross finned tube type Fin material : Aluminium fin with repellent coating Tube : Copper tube OD 9.52 mm Maker : CENTURY CORPORATION	1
4	FAN	Type : Multi blade centrifugal fan (Sirocco fan) Model : SF-# 1 3/4DS + SF-# 1 3/4DS Revolution : 820 rpm Maker : CENTURY CORPORATION	1
5	FAN MOTOR	Type : Totally enclosed fan cooled type Output rated : 0.55 kW Revolution : 1,720 rpm (4 Pole) Insulation class : F class Index of protection : IP 54 Starting Method : Direct on line Maker : STANDARD	1
6	THERMAL EXPANSION VALVE	Model : EBSSE-10 Maker : SPORLAN	1

NO.	PART NAME	SPECIFICATIONS	Q'TY/UNIT
7	PRESSURE SWITCH	Type : Manual reset type Model : KP-15 Range : High : 0.8 ~ 3.2 MPa Low : - 0.02 ~ 0.75 MPa Setting pressure High : Open set 2.25 MPa Close set MANUAL Low : Open set 0.38 MPa Close set 0.6 MPa Maker : DANFOSS	1
8	TEMPERATURE SWITCH	Type : Adjustable type Model : FOX-S1004C Range : 20 ~ 40 °C Maker : DAE SUNG ENG.	1
9	PRESSURE GAUGE	Type : Dial type (Low) Conns. : 1/4" flare connection Model : P-254 Range : - 0.1 ~ 2.0 MPa Maker : VARIOUS	1
		Type : Dial type (High) Conns. : 1/4" flare connection Model : P-254 Range : - 0.1 ~ 4.0 MPa Maker : VARIOUS	1
10	AIR FILTER	Type : Washable polyvinyl chloride fiber Maker : CENTURY CORPORATION	1
11	REFRIGERANT	Type : R-404A Charge port : 1/4" Flare (7/16 UNF check joint) (Located in condenser outlet service valve) Maker : Various	8 kg
12	FILTER & DRIER	Type : DML165S Maker : DANFOSS	1

4. Supply scope

4.1 Packaged air conditioning unit ----- 1 Set / ship

4.2 Standard onboard spare parts for one year ----- 1 Lot / unit

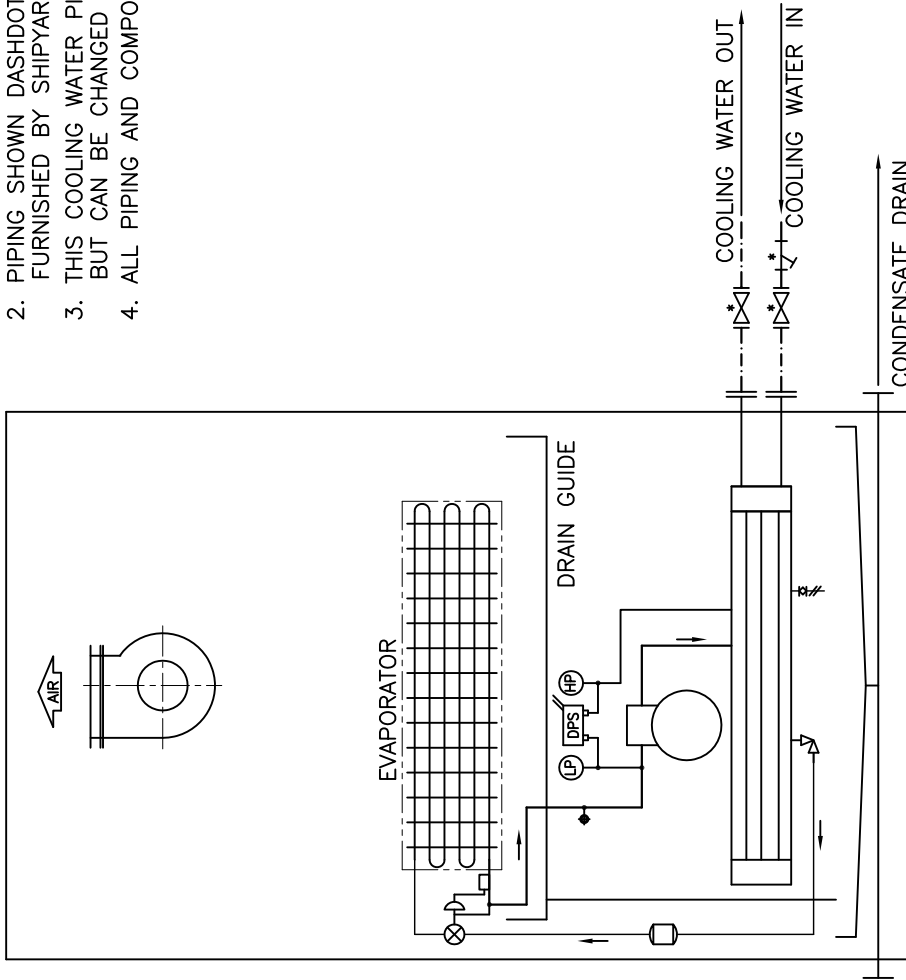
NO.	PART NAME	SPECIFICATIONS	MFG. NO.	Q'TY/UNIT
1	BOX FOR SPARE PARTS	Model : J-301 Size : W350 x D175 x H125 Materia : PLASTIC Weight : 500 g Maker : CENTURY CORPORATION	003-001	1
2	RUBBER PACKING	Size : t3.0 x OD255 Weight : 440 g/Each Maker : CENTURY CORPORATION	003-002	2
3	V-BELT FOR BLOWER	Size : # AX x 27 Inch Weight : 0.14 kg Maker : Various	003-005	2
4	FUSIBLE PLUG	Size : PT 3/8" Weight : 40 g Melting point : 72±2℃ Maker : Various	003-006	1
5	AIR FILTER	Size : Standard Weight : 500 g Maker : CENTURY CORPORATION	003-008	1
6	BRUSH	Size : Standard Weight : 12 g Maker : Various	003-010	1
7	INCANDESCENT BULB FOR ILLUMINATED PUSHBUTTON	Voltage : 6.3VAC Power : 1.0W Weight : 2 g Sequence mark : WL, GL Maker : Various	003-012	2
8	FUSE FOR CONTROL CIRCUIT	Model : DIAZED 4A Sequence mark : EF Weight : 8 g Maker : Various	003-015	2

This document must not be copied without our consent, nor must its contents be made known to others or otherwise unauthorizedly used. All data subject to change without notice. Century

이 도면은 주식회사 선유리의 지적 재산이므로 사전허가없이 유출하거나 복사할 수 없습니다.

NOTE

1. AFTER INSTALLATION, LEAK TEST ALL WATER PRESSURE PARTS TO 8 Kg/Cm2G.
2. PIPING SHOWN DASHDOTTED AND COMPONENTS MARKED(*) ARE FURNISHED BY SHIPYARD.
3. THIS COOLING WATER PIPING DIAGRAM IS RECOMMEND BY MAKER, BUT CAN BE CHANGED BY SHIPYARD.
4. ALL PIPING AND COMPONENTS ARE INSTALLED BY SHIPYARD.



PIPING SIZE

DESCRIPTION	MP-G(N)3HS3	MP-G(N)5, 7.5, 10HS3
COOLING WATER IN	JIS 5K 25A FLANGE	JIS 5K 40A FLANGE
COOLING WATER OUT	JIS 5K 25A FLANGE	JIS 5K 40A FLANGE
CONDENSATED DRAIN	PT 1"	

SYMBOL	DESCRIPTION
	COMPRESSOR
	EVAPORATOR / HEATING COIL
	SUPPLY FAN
	CONDENSER
	FILTER DRIER
	FUSIBLE PLUG
	EXPANSION V/V
	ANGLE TYPE STOP VALVE
	CHECK JOINT
	DUAL PRESSURE SWITCH
	HIGH PREESSURE GAGE
	LOW PRESSURE GAGE
	Y-STRAINER
	DRAIN PAN
	STOP V/V

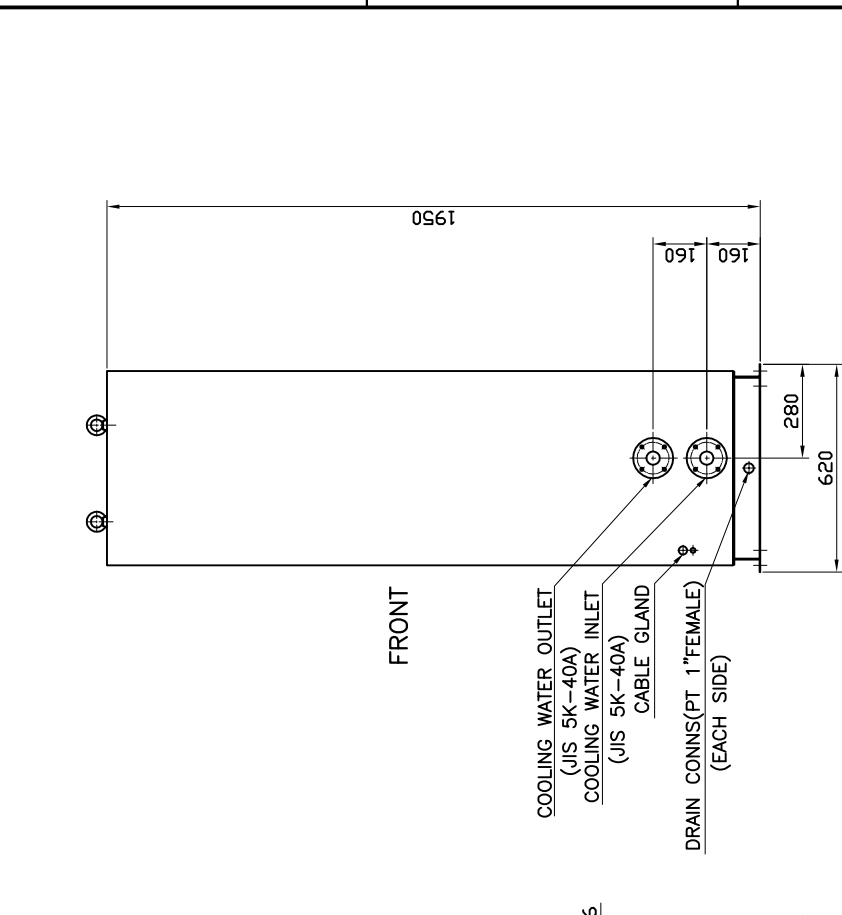
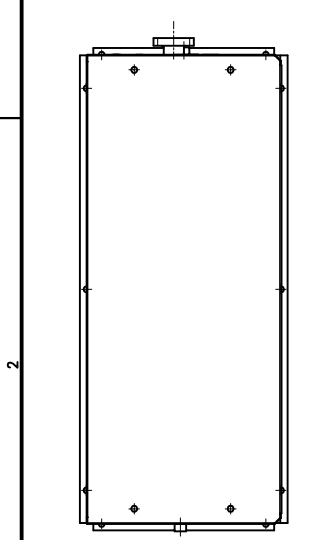
A	TOLERANCES UNLESS OTHERWISE SPECIFIED		PRODUCT NAME MARINE TYPE PACKAGED AIR CONDITIONER		TITLE PIPING DIAGRAM (R-404A)		
	MODEL MP-G(N)3~10HF(S)3				THIRD ANGLE PROJECTION		
	DWN BY	DESIGNED BY	CHKED. BY	APPD.			
		Y. H. SONG	H. LEE	L. W. NAM	REFERENCE DRW NO.		
		2001. 2. 1.	2001. 2. 2.	2001. 2. 2.			
Century Corporation				DRAWING NO.	MA400354	Rev. 0	

This document must not be copied without our consent, nor must its contents be made known to others or otherwise unauthorizedly used. All data subject to change without notice. Century.

이 도면은 무단복사, 전수, 전파, 또는 기타 방법으로
 타인에게 공개될 경우 법적 책임을 지게 됩니다.
 무단으로 공개되거나 복사될 수 없습니다.

C	B	A	MARK	REVISION RECORD				DATE	REVISED	CHKED	APPD.
				QTY.	QTY.	QTY.	QTY.				
			△								
			△								
			△								
			△								

QTY.	QTY.	QTY.	PARTS No.	PARTS NAME	MATERIAL	TREAT.	DIMENSION	WEIGHT	
								MTL.	FINED.
			01						
			02						
			03						



TOLERANCES UNLESS OTHERWISE SPECIFIED		PRODUCT NAME		MARINE TYPE		TITLE	
		MP-G7.5(10)HS(F)3(2.4.5.6)/FARGG10		PACKAGED AIR CONDITIONER		DIMENSION DRAWING	
MODEL				MP-G7.5(10)HS(F)3(2.4.5.6)/FARGG10			
DWN BY	DESIGNED BY	CHKD. BY	APPD.	THIRD ANGLE PROJECTION	SCALE	1:16	UNIT : mm
Y.S.LEE	Y.W.JUNG		<i>[Signature]</i>	REFERENCE DRW. NO.			
2003.07.02	2003.07.02		2003.07.02	DRAWING NO.	MA307096R1		Rev. 0
				Century Corporation			