# ISUZU MARINE



# "JAPANESE QUALITY"

It is our pride.

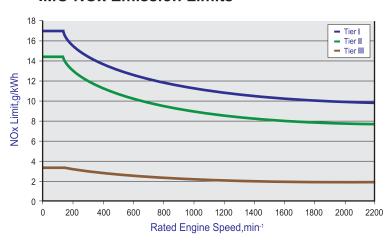
We are committed to providing optimal products and service for our customer.

The prevention of pollution by ships has become one of the major global issues. The regulation of NOx emission levels were set for marine diesel engines greater than 130kW installed on vessels constructed on or after January 1st 2000. And "Tier II/III" standards were set in October 2008 for the engines installed on vessels constructed on or after January 2011.

Isuzu Marine Engine Products meet IMO(International Maritime Organization) Tier II emission regulations by Isuzu Diesel technologies which are derived from its automotive engines.

In order to leave behind a beautiful earth to our children, as citizens of this earth, Isuzu Marine Engines contribute greatly to environmental protection.

#### **IMO NOx Emission Limits**









At Isuzu Motors Engine Sales Inc. quality comes first.

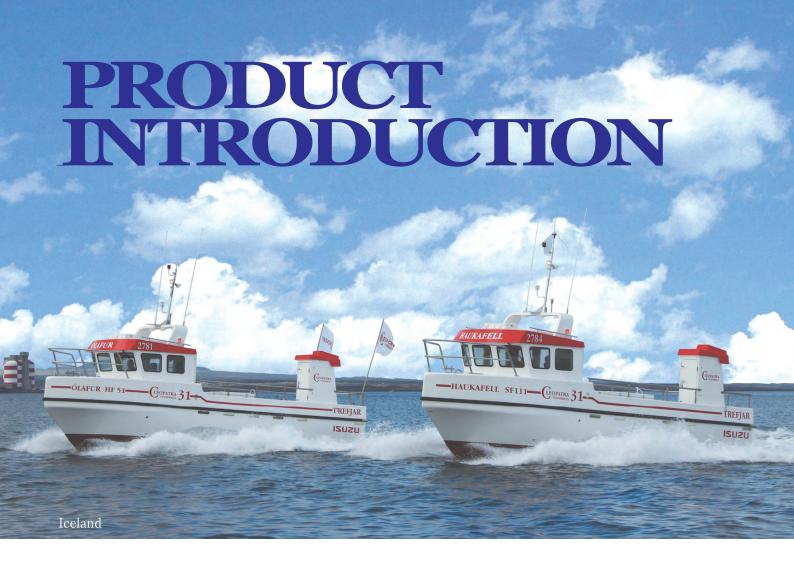
For the peace of mind of customers around the world, the Manufacturing Division executes a strict quality control system which conforms to ISO9001 international quality control standards backed up with over 60 years' experience and is derived from the quality of Isuzu Motors.

Isuzu marine engines are originally designed for marine applications and all models are manufactured in Japan.



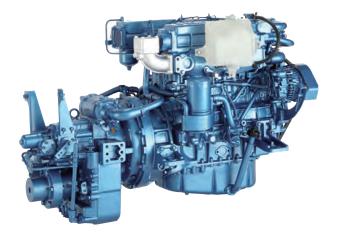
#### History.....

- 1947 Founded as a manufacturer, distributor, and repairer of marine diesel engines, marine generator sets and marine gears.
- 1951 Eighty-eight(88) horsepower "DA45" type, the compact high-speed engine was first developed in Japan in cooperation with Isuzu Motors Limited...
- 1972 Isuzu Motors Limited acquired in capital and the company name was changed from Tokyo Boat Limited to Isuzu Marine Engine Inc..
- 1973 Started the product supply in the Taiwanese market as our first overseas market with "UM2AB1" & "UM3AB1".
- 1977 Started the product supply in the European market, and then into Norway, Sweden, Greece and Portugal.
- Started the product supply in the Middle East market.
- 2001 "4EE2TMC" type for pleasure boat, developed and started commercial production at Isuzu diesel engine plant in Poland.
- 2007 Common-railed marine engine was first developed in Japan.
- 2008 Certified ISO 14001 and ISO9001.
- 2010 Certified IMO Tier II emission regulation on all models.
- 2013 The company name was changed from Isuzu Marine Engine Inc. to Isuzu Motors Engine Sales Inc.



## **UM4JB1**

### 49kW



#### ACCESSORIES

#### Standard.....

- · Installation kit
- · Battery relay
- · Extension harness (3m)
- · Seawater pump impeller \*
- · Bilge pump
  - np
- · Control head · Instrument panel
- · Tool kit
- · Owner's manual
  - \* spare parts

### Option.....

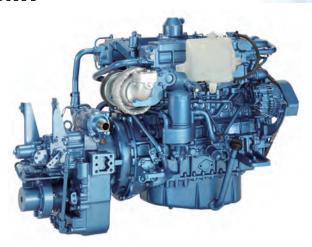
- · Extension harness (3m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)
- Kingston valve

#### ■ ENGINE SPECIFICATIONS

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine			
Bore x Stroke		mm (in)	93 × 102 (3.66 × 4.02)			
Displacement		Lit. (cid)	2.771 (169)			
Rated output	kW(PS)/min <sup>-1</sup>	Medium duty	49 (67) / 3200			
Application			Commercial use			
Governor type			Mechanical			
Combustion typ	oe .		Direct injection			
Aspiration			Natural aspiration			
Facina sina	L W/ II	Engine	768×629.5×737			
Engine size	L×W×H mm	with MGN35A-5	1199.5×629.5×811			
En alla a constata	I (II.)	Engine	290 (639)			
Engine weight	kg (lb)	with MGN35A-5	445 (981)			
Fuel used			Diesel fuel			
Starter		V-kW	24 - 3.2			
Alternator		V-A	24 - 30			
Lubrication met	hod		Full flow pressure circulation			
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)			
Heat exchanger	(seawater circu	ulation)	Multi-tube type (freshwater→seawater)			
Intercooler			_			
Detection die 10		Crankshaft	Right (clockwise) viewed from front of engine			
Rotation direction	on	Propeller shaft	Right (clockwise) viewed from stern			
Idling speed		min-1	500~550			
	Ma	rine Gear Model	MGN35A-5			
Marine gear		Clutch type	Wet, multi-plate hydraulic type			
warne gear		Reverse type	Constant-mesh type gear			
		Reduction ratio	2.56, 3.05, 3.45			

## **UM4JB1TCX**

## 85kW



#### ACCESSORIES

### Standard.....

- · Installation kit
- · Battery relay
- · Extension harness (3m)
- · Seawater pump impeller \*
- · Bilge pump
- · Instrument panel
- Tool kit · Owner's manual
- · Control head
  - - \* spare parts

### Option.....

- · Extension harness (3m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)
- · Kingston valve

#### **■ ENGINE SPECIFICATIONS**

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	93 × 102 (3.66 × 4.02)		
Displacement		Lit. (cid)	2.771 (169)		
Date day to the Like	((DO) (!]	Medium duty	81 (110) / 3100		
Rated output kW	(PS)/min <sup>-1</sup>	Light duty	85 (115) / 3200		
Application			Commercial use		
Governor type			Mechanical		
Combustion type			Direct injection		
Aspiration			Turbo chargered / Intercooler		
Engine size Lx\	N×H mm	Engine	773×634.5×790		
Erigine size LXI	w×H mm	with MGN35A-5	1199.5×634.5×864		
En alian contaba	Lean (He)	Engine	298 (657)		
Engine weight	kg (lb)	with MGN35A-5	453 (998)		
Fuel used			Diesel fuel		
Starter		V-kW	24 - 3.2		
Alternator V-A			24 - 30		
Lubrication method			Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)		
Heat exchanger (seawat	er circulation	on)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
Rotation direction		Crankshaft	Right (clockwise) viewed from front of engine		
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern		
Idling speed		min-1	500~550		
	Mar	ine Gear Model	MGN35A-5		
Marina gaar		Clutch type	Wet, multi-plate hydraulic type		
Marine gear		Reverse type	Constant-mesh type gear		
		Reduction ratio	2.56, 3.05, 3.45		

Specifications subject to change without notice

## **UM4JG1TCX** 101kW



#### ACCESSORIES

### Standard.....

- $\cdot$  Installation kit
- Battery relayExtension harness (3m)
- · Seawater pump impeller \*
- · Bilge pump
- · Tool kit · Owner's manual
- · Control head · Instrument panel
- \* spare parts

### Option.....

- · Extension harness (3m)
- · Control cable (4m,6m,10m,12m) · Stop cable (4m,6m,8m)
- · Kingston valve

#### **■ ENGINE SPECIFICATIONS**

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	95.4×107 (3.75×4.21)		
Displacement		Lit. (cid)	3.059 (186)		
Rated output kW(F	S)/min-1	Medium duty	94 (128) / 3100		
Rated output KW(F	(2)/IIIIII ·	Light duty	101 (138) / 3200		
Application			Commercial use		
Governor type			Mechanical		
Combustion type			Direct injection		
Aspiration			Turbo chargered / Intercooler		
Engine size LxWxI	H mm	Engine	810×672×891		
Lingine size LX VV XI	1 111111	with MGN35A-5	1266.5×672×891		
Es aire a contaba	L (II-)	Engine	324 (714)		
Engine weight	kg (lb)	with MGN35A-5	479 (1,056)		
Fuel used			Diesel fuel		
Starter		V-kW	24 - 3.2		
Alternator		V-A	24 - 30		
Lubrication method			Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)		
Heat exchanger (seawater	circulation	on)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
Rotation direction		Crankshaft	Right (clockwise) viewed from front of engine		
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern		
Idling speed		min-1	500~550		
	Mar	ine Gear Model	MGN35A-5		
Marina gaar		Clutch type	Wet, multi-plate hydraulic type		
Marine gear		Reverse type	Constant-mesh type gear		
		Reduction ratio	2.56, 3.05, 3.45		

## UM4BG1Z 81kW



#### ACCESSORIES

### Standard.....

- $\cdot \text{ Installation kit}$
- Battery relayExtension harness (3m)
- · Seawater pump impeller \*
- · Bilge pump
- $\cdot \text{ Control head} \\$

- · Instrument panel
- · Blow-by pipe · Tool kit · Owner's manual
- \* spare parts

· Oil drain pump

### Option.....

- Extension harness (3m)
  Control cable (4m,6m,10m,12m)
  Stop cable (4m,6m,8m)
- · Kingston valve

#### **ENGINE SPECIFICATIONS**

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine			
Bore x Stroke		mm (in)	105 × 125 (4.13 × 4.92)			
Displacement		Lit. (cid)	4.329 (264)			
Rated output	kW(PS)/min <sup>-1</sup>	Medium duty	81 (110) / 2900			
Application			Commercial use			
Governor type			Mechanical			
Combustion type			Direct injection			
Aspiration			Natural aspiration			
Engine size L	-×W×H mm	Engine	918×761×938.5			
Engino dizo		with MGN35A-1	1268×761×938.5			
Engine weight	kg (lb)	Engine	436 (961)			
Liigine weight	kg (ID)	with MGN35A-1	589 (1,298)			
Fuel used			Diesel fuel			
Starter		V-kW	24 - 4.5			
Alternator		V-A	24 - 30			
Lubrication metho	od		Full flow pressure circulation			
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)			
Heat exchanger (s	seawater circu	lation)	Multi-tube type (freshwater→seawater)			
Intercooler			<del>-</del>			
Rotation direction		Crankshaft	Right (clockwise) viewed from front of engine			
		Propeller shaft	Right (clockwise) viewed from stern			
Idling speed	· · · · · · · · · · · · · · · · · · ·	min-1	500~550			
	Mar	ine Gear Model	MGN35A-1			
Marina goar		Clutch type	Wet, multi-plate hydraulic type			
Marine gear		Reverse type	Constant-mesh type gear			
		Reduction ratio	2.56, 3.05, 3.45			

Specifications subject to change without notice

## **UM4BG1TCX**

## 147kW



#### ACCESSORIES

### Standard.....

- · Installation kit
- · Battery relay
- · Extension harness (3m)
- · Seawater pump impeller \*
- $\cdot$  Bilge pump
- $\cdot$  Oil drain pump
- · Control head · Instrument panel
- · Blow-by pipe · Tool kit · Owner's manual
  - \* spare parts

### Option.....

- · Extension harness (3m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)
- Kingston valve

### **ENGINE SPECIFICATIONS**

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	105 × 125 (4.13 × 4.92)		
Displacement		Lit. (cid)	4.329 (264)		
		Medium duty	134 (182) / 2700		
Rated output kWi	PS)/min <sup>-1</sup>	Light duty	147 (200) / 2800		
Application			Commercial use		
Governor type			Mechanical		
Combustion type			Direct injection		
Aspiration			Turbo chargered / Intercooler		
Exhaust gas status			IMO Tier II		
Engine size L×W	/×H mm	Engine	1057×764×941		
Erigine size Lxvi	XII IIIII	with MGN35A-1	1283×764×941		
Facine	L = (II=)	Engine	515 (1,135)		
Engine weight	kg (lb)	with MGN35A-1	668 (1,473)		
Fuel used			Diesel fuel		
Starter V-kW			24 - 4.5		
Alternator V-A			24 - 50		
Lubrication method			Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)		
Heat exchanger (seawat	er circulati	on)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
B		Crankshaft	Right (clockwise) viewed from front of engine		
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern		
Idling speed		min-1	550		
	Mai	rine Gear Model	MGN35A-1		
Marine gear		Clutch type	134 (182) / 2700  147 (200) / 2800  Commercial use  Mechanical  Direct injection  Turbo chargered / Intercooler  IMO Tier II  1057×764×941  1283×764×941  515 (1,135)  668 (1,473)  Diesel fuel  24 - 4,5  24 - 50  Full flow pressure circulation  Freshwater, full flow pressure circulation (Seawater, indirect)  Multi-tube type (freshwater→seawater)  Multi-tube type (seawater circulation)  Right (clockwise) viewed from front of engine Right (clockwise) viewed from stern		
iviai ii e geal		Reverse type	Constant-mesh type gear		
		Reduction ratio	2.56, 3.05, 3.45		

## **UM6BG1TC**

## 169kW



#### ACCESSORIES

### Standard.....

- $\cdot$  Installation kit
- $\cdot \ \mathsf{Battery} \ \mathsf{relay}$
- · Extension harness (5m)
  · Seawater pump impeller \*
- $\cdot$  Bilge pump
- $\cdot \text{ Control head} \\$

- $\cdot \ \text{Instrument panel} \\$
- · V-belt \*
- $\cdot$  Blow-by pipe · Tool kit
  - · Owner's manual

 $\cdot$  Oil drain pump

\* spare parts

### Option.....

- Extension harness (5m)
  Control cable (4m,6m,10m,12m)
  Stop cable (4m,6m,8m)
- · Kingston valve

#### ■ ENGINE SPECIFICATIONS

ENGINE	SPECIFIC	CATIONS			
Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	105 × 125 (4.13 × 4.92)		
Displacement		Lit. (cid)	6.494 (396)		
Rated output	kW(PS)/min <sup>-1</sup>	Medium duty	154 (210) / 2600		
nateu output	KW(F3)/IIIII	Light duty	169 (230) / 2700		
Application			Commercial use		
Governor type			Mechanical		
Combustion typ	ре		Direct injection		
Aspiration			Turbo chargered / Intercooler		
Exhaust gas sta	itus		IMO Tier II		
Engine size	L×W×H mm	Engine	1264×818×969		
Lingline size	LXVVXII IIIII	with MGN40E-1A	1505.5×818×975.5		
En alexandrates	L (11s.)	Engine	600 (1,323)		
Engine weight	kg (lb)	with MGN40E-1A	775 (1,709)		
Fuel used			Diesel fuel		
Starter		V-kW	24 - 4.5		
Alternator		V-A	24 - 40		
Lubrication met	hod		Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)		
Heat exchanger	(seawater circu	ılation)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
Rotation direction		Crankshaft Right (clockwise) viewed from front of			
Rotation directi	on	Propeller shaft	Right (clockwise) viewed from stern		
Idling speed		min-1	500		
	Mai	ine Gear Model	MGN40E-1A		
Marina gaar		Clutch type	Wet, Multi-plate hydraulic type		
Marine gear		Reverse type	IMO Tier II  1264×818×969  1505,5×818×975,5  600 (1,323)  775 (1,709)  Diesel fuel  24 - 4,5  24 - 40  Full flow pressure circulation  Freshwater, full flow pressure circulation  (Seawater, indirect)  Multi-tube type (freshwater→seawater)  Multi-tube type (seawater circulation)  Right (clockwise) viewed from front of engine  Right (clockwise) viewed from stern  500  MGN40E-1A		
		Reduction ratio	2.33, 2.91, 3.45		

Specifications subject to change without notice

## **UM6BG1TCX**

### 210kW



#### ACCESSORIES

#### Standard.....

- · Installation kit
- $\cdot \ \mathsf{Battery} \ \mathsf{relay}$
- · Extension harness (5m)
  · Seawater pump impeller \*
- $\cdot$  Bilge pump
- · Control head
- · Instrument panel
- · Oil drain pump  $\cdot$  Blow-by pipe
- · V-belt \*
  - · Tool kit
  - · Owner's manual
- Option....\*spare parts

- · Extension harness (5m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)
- · Kingston valve

#### ENGINE SPECIFICATIONS

Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	105×125(4.13×4.92)		
Displacement		Lit, (cid)	6.494 (396)		
Displacement		Medium duty	191(260)/2600		
Rated output kV	V(PS)/min <sup>-1</sup>	Light duty	,		
A 12 12		Light duty	210(285)/2700		
Application			Commercial use		
Governor type			Mechanical		
Combustion type			Direct injection		
Aspiration			Turbo chargered / Intercooler		
Exhaust gas status			IMO Tier II		
Engine size L×	W×H mm	Engine	1343×864.5×969		
Engine Size Ex	*****	with MGN40E-1A	1505.5×864.5×975.5		
F	1 (0.)	Engine	645 (1,422)		
Engine weight	kg (lb)	with MGN40E-1A	820 (1,808)		
Fuel used			Diesel fuel		
Starter		V-kW	24 - 4.5		
Alternator		V-A	24 - 40		
Lubrication method			Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)		
Heat exchanger (seawa	ater circulati	on)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
		Crankshaft Right (clockwise) viewed from front of			
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern		
Idling speed		min-1	550		
	Mar	ine Gear Model	MGN40E-1A		
Marina goar		Clutch type	Wet, Multi-plate hydraulic type		
Marine gear		Reverse type	Constant-mesh type gear		
		Reduction ratio	2.33, 2.91, 3.45		

## **UM6HE1TCX**

## 257kW



#### ACCESSORIES

### Standard.....

- · Installation kit
- · Battery relay
- · Extension harness (5m)
- · Seawater pump impeller \*
- · Bilge pump
- · Control head
- · Instrument panel
- $\cdot$  Blow-by pipe
  - · V-belt \*
  - · Tool kit
  - · Owner's manual

· Oil drain pump

\* spare parts

#### Option.....

- Extension harness (5m)
  Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)
- · Kingston valve

#### ENGINE SPECIFICATIONS

Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	110 × 125 (4.33 × 4.92)		
Displacement		Lit. (cid)	7.127 (434)		
Data da cutacut	kW(PS)/min <sup>-1</sup>	Medium duty	235 (320) / 2700		
Rated output	KW(PS)/IIIII	Light duty	257 (350) / 2800		
Application			Commercial use		
Governor type			Mechanical		
Combustion typ	е		Direct injection		
Aspiration			Turbo chargered / Intercooler		
Exhaust gas sta	tus		IMO Tier II		
Engine size	LxWxH mm	Engine	1527×952×1101.5		
Erigine size	LXWXH IIIII	with MGN46E-26	1730.5×952×1101.5		
E	I (II.)	Engine	720 (1,587)		
Engine weight	kg (lb)	with MGN46E-26	926 (2,041)		
Fuel used			Diesel fuel		
Starter V-kW			24 - 4.5		
Alternator V-A			24 - 50		
Lubrication method			Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)		
Heat exchanger	(seawater circ	ulation)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
D 1 1 1 1		Crankshaft	Right (clockwise) viewed from front of engine		
Rotation direction	on	Propeller shaft	Right (clockwise) viewed from stern		
Idling speed		min <sup>-1</sup>	550		
	Ma	rine Gear Model	MGN46E-26		
Marine gear		Clutch type	Wet, multi-plate hydraulic type		
waring gear		Reverse type	Constant-mesh type gear		
		Reduction ratio	2,58, 3,05, 3,53		

## **UM6SD1TCX**

## 279kW



#### ACCESSORIES

#### Standard.....

- · Installation kit
- · Battery relay
- · Extension harness (5m) · Seawater pump impeller \*
- · Control head
- · Bilge pump · Oil drain pump
- $\cdot$  Blow-by pipe · Instrument panel
  - · V-belt \* · Tool kit
  - · Owner's manual
  - \* spare parts

### Option.....

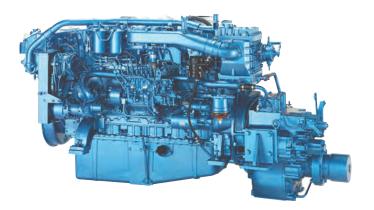
- · Extension harness (5m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)
- · Kingston valve

#### **■ ENGINE SPECIFICATIONS**

Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	117.9 × 145 (4.64 × 5.70)		
Displacement		Lit. (cid)	9.498 (579)		
Rated output kW(PS)	· /:1	Medium duty	254 (345) / 2220		
Rated output kW(PS)	//min ·	Light duty	279 (380) / 2300		
Application			Commercial use		
Governor type			Mechanical		
Combustion type			Direct injection		
Aspiration			Turbo chargered / Intercooler		
Exhaust gas status			IMO Tier II		
Engine size L×W×F		Engine	1441×885×1189		
Engine size Lxvvxr	1 111111	with MGN123E-8	1769.5×885×1189		
Engine weight k	g (lb)	Engine	935 (2,061)		
Lingine weight K	.g (ID)	with MGN123E-8	1,188 (2,619)		
Fuel used			Diesel fuel		
Starter		V-kW	24 - 7.4		
Alternator		V-A	24 - 40		
Lubrication method			Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)		
Heat exchanger (seawat	er circu	ılation)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
Rotation direction		Crankshaft Right (clockwise) viewed from front of			
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern		
Idling speed		min <sup>-1</sup>	500		
	Mar	rine Gear Model	MGN123E-8		
Marine gear		Clutch type	Wet, Multi-plate hydraulic type		
Warnie gear		Reverse type	Constant-mesh type gear		
		Reduction ratio	2.57, 3.08		

## **UM6WG1TC-AB**

## 485kW



#### ACCESSORIES

- · Installation kit
- · Oil drain pump
- · Battery relay
- · Extension harness (5m)
- · Seawater pump impeller \*
- Standard..... · Bilge pump
  - · Control head
  - · Instrument panel
- · V-belt \* · Zinc bars \*
  - · Tool kit
    - · Owner's manual \* spare parts

· Blow-by pipe

#### Option.....

- · Extension harness (5m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

#### ENGINE SPECIFICATIONS

Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	147 × 154 (5.78 × 6.06)		
Displacement		Lit. (cid)	15.681 (956)		
		AB1	377 (512) / 1800		
Rated output *1 kW	'(PS)/min <sup>-1</sup>	AB2	447 (608) / 2000		
		AB3	485 (659) / 2100		
Application			Commercial use		
Governor type			Mechanical		
Combustion type			Direct injection		
Aspiration			Turbo chargered / Intercooler		
Exhaust gas status			IMO Tier II		
Engine size L×W×H i	mm	Engine	2078×1092.5×1354		
Lingine size LXVVXII I	with MC	GN80B-102	2424.5×1092.5×1359		
Carina mainta ka	(lb)	Engine	1,600 (3,527)		
Engine weight kg	with MC	GN80B-102	2,060 (4,542)		
uel used			Diesel fuel		
Starter V-kW			24 - 7.4		
Alternator V-A			24 - 50		
Lubrication method			Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation(Seawater, indire		
Heat exchanger (seawater	circulation)	)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
Rotation direction	Cr	ankshaft	Right (clockwise) viewed from front of engine		
Rotation direction	Prope	ller shaft	Right (clockwise) viewed from stern		
Idling speed		min-1	560~600		
	Marine Ge	ar Model	MGN80B-102		
Marine gear	Clu	ıtch type	Wet, Multi-plate hydraulic type		
iviai ii le geai	Reve	erse type	Constant-mesh type gear		
	Reduct	tion ratio	2.03, 2.55, 2.96, 3.31, 3.48		

<sup>\*1:</sup> F/W output, AB1:Continuous heavy duty, AB2:Heavy duty, AB3:Medium duty Specifications subject to change without notice

## **UM6WG1TCX** 537kW



#### ACCESSORIES

## Standard.....

- · Installation kit
- · Battery relay
- · Blow-by pipe
- · Extension harness (5m)
- · Seawater pump impeller \*
- Bilge pump · Control head
- · Tool kit · V-belt \*
- · Instrument panel
- · Owner's manual
- \* spare parts

#### Option.....

- · Extension harness (5m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

#### **■ ENGINE SPECIFICATIONS**

Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine		
Bore x Stroke		mm (in)	147 × 154 (5.78 × 6.06)		
Displacement		Lit. (cid)	15.681 (957)		
Rated output kW(PS)	/t1	Medium duty	515 (700) / 2060		
Rated output kW(PS)	/min-	Light duty	537 (730) / 2100		
Application			Commercial use		
Governor type			Mechanical		
Combustion type			Direct injection		
Aspiration			Turbo chargered / Intercooler		
Exhaust gas status			IMO Tier II		
Engine size L×W×H	mm	Engine	1771×1066.5×1391		
Lingine size LXVVXIII	111111	with MGN80B-102	2264×1066.5×1396		
En diamentale de	/!!- \	Engine	1,665 (3,671)		
Engine weight k	g (lb)	with MGN80B-102	2,125 (4,685)		
Fuel used			Diesel fuel		
Starter		V-kW	24 - 7.4		
Alternator V-A			24 - 50		
Lubrication method			Full flow pressure circulation		
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)		
Heat exchanger (seawat	er circ	ulation)	Multi-tube type (freshwater→seawater)		
Intercooler			Multi-tube type (seawater circulation)		
B		Crankshaft	Right (clockwise) viewed from front of engine		
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern		
Idling speed		min-1	600		
	Ma	rine Gear Model	MGN80B-102		
Manine man		Clutch type	Wet, Multi-plate hydraulic type		
Marine gear		Reverse type	Constant-mesh type gear		
		Reduction ratio	2.03, 2.55, 2.96, 3.31, 3.48		

## **Specifications: Commercial use**

Model			UM4JB1	UM4JB1TCX	UM4JG1TCX	UM4BG1Z	UM4BG1TCX
Туре							
						0	HV
Number of cylinder		mm	00	00	4	405	405
Bore		inch	93	93	95.4	105	105
			3.66	3.66	3.75	4.13	4.13
Stroke		mm	102	102	107	125	125
		inch	4.02	4.02	4.21	4.92	4.92
Displacement		L	2.771	2.771	3.059	4.329	4.329
A t 4t		cu-in.	169	169	186	264	264
Aspiration			Natural	Turbocharger	with Intercooler	Natural	
Injection system							
Output		134/					
		kW	-	-	-	-	-
Continuous heavy dut	у	PS	-	-	-	-	-
		HP	-	-	-	-	-
		min <sup>-1</sup>	-	-	-	-	-
		kW	-	-	-	-	-
Heavy duty		PS	-	-	-	-	-
		HP	-	-	-	-	-
		min <sup>-1</sup>	-	-	-	-	-
		kW	49	81	94	81	134
Medium duty		PS	67	110	128	110	182
incaram daty		HP	66	109	126	109	180
		min <sup>-1</sup>	3200	3100	3100	2900	2700
		kW	-	85	101	-	147
I todak alauka		PS	-	115	138	-	200
Light duty		HP	-	114	135	-	197
		min-	-	3200	3200	-	2800
Exhasut gas status				-	-		IMO TIER II
Starting Motor		V-kW	24 - 3.2	24 - 3.2	24 - 3.2	24 - 4.5	24 - 4.5
Alternator		V-A	24 - 30	24 - 30	24 - 30	24 - 30	24 - 50
Marine gear			MGN35A-5	MGN35A-5	MGN35A-5	MGN35A-1	MGN35A-1
Reduction gear ratio			2.56, 3.05 3.45				
Dry weight							
		kg	290	298	324	436	515
Engine		lb	639	657	714	961	1135
NA/:41a BA a si u a u		kg	445	453	479	589	668
With Marine gear		lb	981	998	1056	1298	1473
Dimension							
	Length	mm	768	773	810	918	1057
Engine	Width	mm	629.5	634.5	672	761	764
	Height	mm	737	790	891	938.5	941
	Length	mm	1199.5	1199.5	1266.5	1268	1283
With Marine gear	Width	mm	629.5	634.5	672	761	764
	Height	mm	811	864	891	938.5	941
	Holgin	111111	011	004	091	300.0	941

Rating Definitions : Ratings are based on conditions of 100kPa (1 bar) and 30 to 60% relative humidity at 25°C(77°F). Continuous Heavy Duty

Duty Cycle; Operation up to 100% of the time at rated power and speed.

Typical operation hours; Continuous usage is allowed up to 24 hours and annual usage is unlimited.

#### **Heavy Duty**

Duty Cycle; Operation up to 80% of the time at rated power and speed.

Typical operation hours; Continuous usage is allowed up to 10 hours and annual usage up to 4000 hours.

UM6BG1TC	UM6BG1TCX	UM6HE1TCX	UM6SD1TCX	UM6WG1TC-AB			
				1	2	3	UM6WG1TCX
4 cycle,	, vertical,				_		
				ОН	С		
			6				
105	105	110	117.9		147		147
4.13	4.13	4.33	4.64	5.78			5.78
125	125	125	145	154			154
4.92	4.92	4.92	5.70	6.06			6.06
6.494	6.494	7.127	9.498	15.681			15.681
396	396	434	579	956			957
.,			with Intercooler				
Med	chanical direct injecti	ion					
-	-	-	-	377	-	-	-
-	-	-	-	512	-	-	-
-	-	-	-	506	-	-	-
-	-	-	-	1800	-	-	-
-	-	-	-	-	447	-	-
-	-	-	-	-	608	-	-
-	-	-	-	-	599 2000	-	-
- 154	- 191	235	- 254	-		<del>-</del> 485	<del>-</del> 515
210	260	320	345	<del>-</del>	-	659	700
207	256	315	341	<del>-</del>	_	650	691
2600	2600	2700	2220		<u> </u>	2100	2060
169	210	257	279		<u> </u>	2100	537
230	285	350	380			_	730
227	282	345	374	_	_	_	720
2700	2700	2800	2300	_	_	-	2100
IMO TIER II	IMO TIER II	IMO TIER II	IMO TIER II		IMO TIER II		IMO TIER II
24 - 4.5	24 - 4.5	24 - 4.5	24 - 7.4	24 - 7.4			24 - 7.4
24 - 40	24 - 40	24 - 50	24 - 40	24 - 50			24 - 50
MGN40E-1A	MGN40E-1A	MGN46E-26	MGN123E-8	MGN80B-102			MGN80B-102
2.33, 2.91 3.45	2.33, 2.91 3.45	2.58, 3.05 3.53	2.57, 3.08	2.03, 2.55, 2.96 3.31, 3.48			2.03, 2.55 2.96, 3.31 3.48
600	645	720	935	1600			1665
1323	1422	1587	2061	3527			3671
775	820	926	1188	2060			2125
1709	1808	2041	2619	4542			4685
1264	1343	1527	1441	2078			1771
818	864.5	952	885	1092.5			1066.5
969	969	1101.5	1189	1354			1391
1505.5	1505.5	1730.5	1769.5	2424.5			2264
818	864.5	952	885	1092.5			1066.5
975.5	975.5	1101.5	1189	1359			1396

<sup>\*</sup> All data and information subject to change without notice.

#### **Medium Duty**

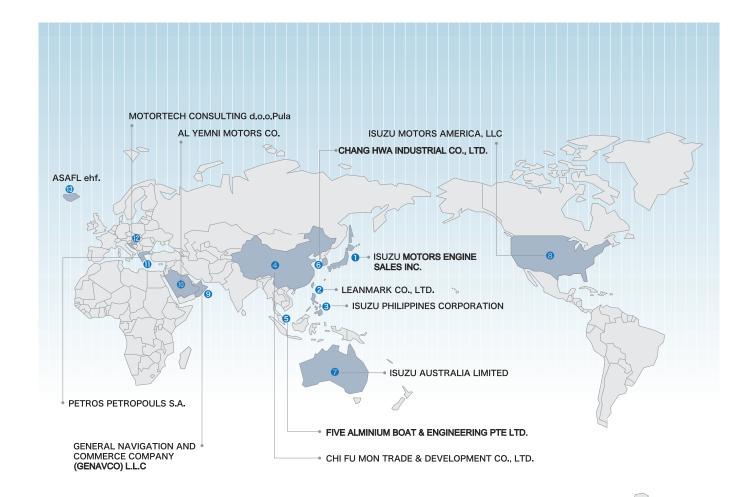
Duty Cycle; Operation up to 60% of the time at rated power and speed.

Typical operation hours; Continuous usage is allowed up to 6 hours and annual usage up to 3000 hours.

### **Light Duty**

Duty Cycle; Operation up to 40% of the time at rated power and speed.

Typical operation hours; Continuous usage is allowed up to 2 hours and annual usage up to 2000 hours.



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