													No.		S4K-134	
	TRANSMITT	AL OF MITSU	BI	SH		+11(	GH	SF	PEE	D	DI	ES	EL	ENGINE	DOCUMEN	Т
	ORDERED BY							CU	STO	MEF	२					
			F( APF	DR PR.	FC APF		F( API						ENC	GINE TYPE		
	PART NAME	PART No.	N		N	D	N	D	Ν	D	N	D		S4K-D	T65SAG	
1	S4K-DT65SAG SPEC.	SPC-S4K-T-250	Ρ	Α	Р	В	Р	С					A :	First offe	r	
2	S4K-DT65SAG ENG ASSY	34200-01740	Ρ	Α	Ρ	В									pecific fue	el
3	S4K-DT65SAG ENG ASSY	34200-01741					Р	C					C	onsumption	value	
4	ACCESSORIES (WITH ENGINE)		Ρ	Α	Ρ	В	Р	C						ddition of egulation	China Emis	sion
5														Export Onl		
6																
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24															1110 7	
25													С	2. Crow	tl. <i>Comata</i> T.Hirose	ref. spec
26														A.V.Mars	Mar. 14. 2016	Sher
27																
28													В		A. Izaka	ref. spec
29															Sep. 12. 2012	CP C C
30																
31													А		A. Izaka	ref. spec
32														$\checkmark$	Jun. 30. 09	
33													DATE	APPROVED	CHECKED BY	CC
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35																:
	N:NUMBER, D:DATE									N	AIT	SUE	SISF	II HEAVY I	NDUSTRIES,	LTD.

SPC-S4K-T-250(1/6)



# **SPECIFICATIONS**

## Used for 60kVA generator

## MITSUBISHI HIGH SPEED DIESEL ENGINE MODEL MITSUBISHI S4K-DT65SAG

## (For GENERATOR OEM, 1500rpm)



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小E作		MITSUBISHI HEAVY INDUSTRIES, LTD.							
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控	$\triangle$	Mar. 14. 2016	H. Irow	H. Komatan.	T.Igusa				
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#### PLEASE RETURN AFTER APPROVAL

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## **Revised record**

No.	Date	Items	New	Old	Remarks
0	Jun. 30. 2009	First offer.			
		Model	S4K-DT65SAG	S4K-T	
		Eng Assy(34200-01740)	1/2-CHG 1, 2/2-CHG 1		Addition of description
		Fuel consumption			Update of specific fuel
		Tolerance		±5%	consumption value
	Sep. 12. 2012	Oil consumption	Approx.0.1~0.3% of fuel consumption <reference value=""> @Full load, Rated speed</reference>		Change of notation to latest
		Flywheel	11-1/2 inch	SAE #11-1/2	Correction
		Accessories parts change		Į.	
		Starter	32B66-12301	32B66-12300	Interchangeable
		MHI No.	34200-01741 (1/2-CHG0, 2/2-CHG0)	34200-01740 (1/2-CHG2, 2/2-CHG1)	Addition of China emission label(Export only) Change location of pressure switch(Distsance from Engine center to terminal: 165.5mm)
	Mar. 14. 2016	Regulations	National Standard of the People's Republic of China GB20891-2014 Export Only engine family; G3MVXLL0425KTZ (engine type; KTZ-S4K- PA1)	No emission regulated type	Change of spec
		Dimensions (Height)	Approx. 938mm	Approx. 928mm	By clamp addition
		Rating conditions(Without fan)	ISO 15550	JIS B 8002	
		Engine attached items&Reference	drawings change		
		UNIT, PRESSURE GAGE		05202-50100	Stop production of supplier
		UNIT, THERMOMETER	MD366-869	05204-50300	Interchangeable
			1		

## **1. Principal Particulars of Diesel Engine**

## **General Specification**

	Standard	All items, unless otherwise specified, are in accordance with JIS and maker's standards
	Model	Mitsubishi S4K-T
$\Delta$	Woder	S4K-DT65SAG
$\sqrt{1}$		MHI No. 34200-01741 (1/2-CHG0, 2/2-CHG0)
/1\/2\	Application	Generator
	Regulations	National Standard of the People's Republic of China
<u>/</u> _\	Regulations	GB20891-2014 Export Only
		engine family; G3MVXLL0425KTZ
		(engine type; KTZ-S4K-PA1)
	Туре	4 cycle water-cooled, vertical overhead valve, cylinder in line,
		direct injection type
	Number of cylinders	4
	Bore $\times$ Stroke	$102 \text{mm} \times 130 \text{mm}$
	Piston displacement	4.249 liters
	Compression ratio	17:1
	Rotation	Anti-Clockwise rotation as viewed from flywheel side
	Firing order	1-3-4-2
	Engine weight(Dry)	Approx. 350kg
	Dimensions(Length)	Approx. 894mm
	(Width)	Approx. 741mm
$\Delta$	(Height)	Approx. 938mm
	Inclination(Continuous)	Max.15°
	(Temporary)	Max.15°
	Fuel	ASTM diesel fuel oil No.2-D(JIS K2204 gas oil specification No.2 or 3)
	Lubricating oil	API classification service CF,CF-4 or CH-4 class
	Output(Without fan)	Spec.Rating
		Breaking in around 50hr St-by Rack set point
	Rated speed	1500rpm
		St-by ; 59.7kW Prime ; 54.7kW
	Rack set point	59.7kW/1500rpm
		(With Fan St-by;59kW)
		(With Fan Prime,54kW)
	Rating tolerance	±5% of nominal 1500 High Idle
	Low Idle	1000±20rpm
^	High Idle	1583(0/-20)rpm
<u>/2</u>	Rating conditions(Without fan)	ISO 15550
		Total barometric pressure : 100kPa
		Air temperature : 298K
		Relative humidity : 30%
Δ	Fuel consumption	Approx. 235g/kW•h at Prime output and standard air conditions(Without fan)
	Oil consumption	
$\Delta$	Oil consumption	Approx. $0.1 \sim 0.3\%$ of fuel consumption <reference value="">@Full load, Rated speed</reference>

Fuel injection timing	20°BTDC
Mean effective pressure	1.03MPa{10.5kgf/cm <sup>2</sup> } at Prime(Without fan)
Piston speed	6.5m/s at 1500rpm

### Fuel system

In-Line type
Multi-Hole type
Mechanical centrifugal type
Filtering paper type
Yes(Engine attached)

### Lubricating system

Lubricating system	Forced lubrication by gear pump
Lubricating oil filter	Filtering paper type, full flow
Oil pressure	0.2~0.4MPa{2~4kgf/cm <sup>2</sup> } at duty run
	0.1MPa{1kgf/cm <sup>2</sup> } min. at low idling
Oil capacity	Approx. 13.0 liters (Oil pan high level 12 liters, Oil filter etc.
	Approx. 1 liters, High ~ Low Approx. 2.8 liters)
Oil dipstick	Standard dipstick
Oil pressure switch	Yes
Oil pressure unit	Yes
Oil cooler	Plate type

#### **Cooling system**

Cooling system	Forced circulation of fresh water by centrifugal pump with thermostat
Engine water capacity	Approx. 6 liters
Cooling fan	580mm diameter, 7 blades, pusher
Water pump pulley	PCD 173mm
Pulley ratio	1.00 (Crankpulley : Water pump pulley = 173:173)
Fan spacer	60mm thickness
Water temp. switch	Yes
Thermo. Unit	Yes
Thermostat	Open at 71deg.C - full open at 85deg.C

### **Electrical system**

Alternator	24V-35A
Voltage regulator	IC type (Built in alternator)
Regulator set voltage	$28.5 \pm 0.5 V$
Alternator pulley	PCD 80mm
Starting system	Electric starting
Starter motor	24V-5kW
Air heater	22V,95A
Engine shut off system	Electric solenoid (ETS)

#### SPC-S4K-T-250(5/6)

#### Intake and Exhaust system

	Air intake	Engine rear side of turbo charger					
	Exhaust outlet	Engine front side of turbo charger					
	Induction Resistance	Max 1.96kPa{200mmH20}(Initial stage)					
	Exhaust Back Pressure	Max 4.0kPa{408mmH20}					
	Turbo system						
	Turbo system						
	Manufacturer	Mitsubishi Heavy Industries,Ltd.					
	Туре	TD06H					
	<remarks></remarks>						
	Engine color	Black(MHI standard color)					
$\triangle$	Flywheel	11-1/2inch					
	Flywheel housing	SAE #3					

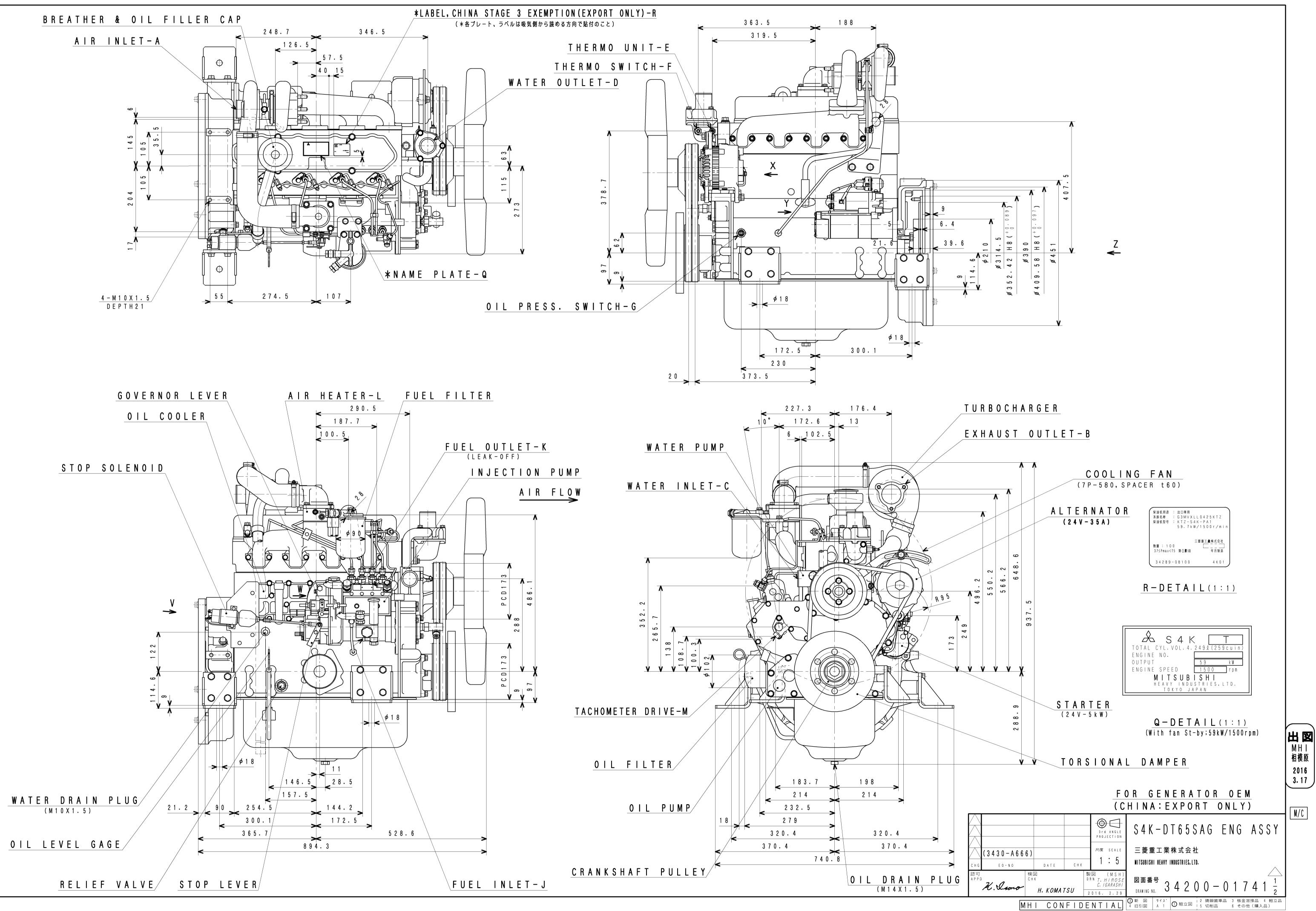
## 2. Engine attached items&Reference drawings

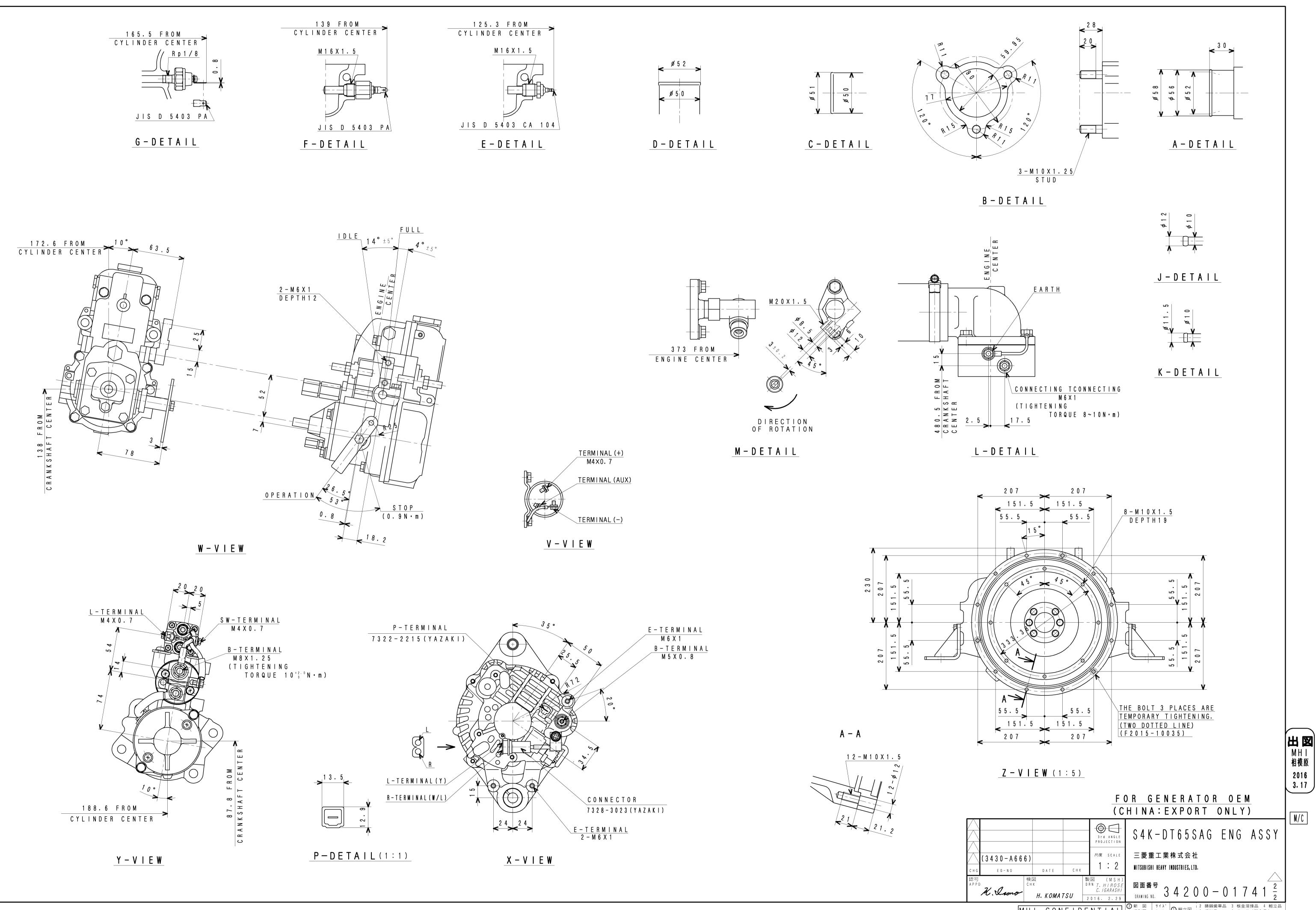
	Parts Name	Drawing No.	Q'ty	Remarks(Drawing No.)
1	WIRING DIAGRAM	34290-07021	—	Reference(only for)
2	SWITCH,OIL PRESSURE	MC840-219	1	
3	SWITCH, THERMO	MC880-900	1	
4				
5	UNIT, THERMOMETER	MD366-869	1	
6	STOP SOLENOID(ETS)	34287-01300	1	STOP SOLENOID KIT 34287-00030
. 7	STARTER	32B66-12301	1	
8	AIR,HEATER	36766-11502	1	
9	ALTERNATOR	34368-04100	1	
10	FILTER ASSY, FUEL	34362-00012	1	
11	FILTER,OIL	ME014-833	1	
12	COOLING FAN	34348-00201	1	
13	L-JOINT	30625-35020	1	

## **3.** Accessories(Loose supply parts)

	Parts Name	Parts No.	Q'ty	Remarks(Drawing No.)	]
1	TIMER CONTROL	32B90-02400	1		A4
2	CONNECTOR,3P	MM409-661	1		A4
3	CONNECTOR,4P	MM409-663	1		A4
4	CONNECTOR,2P	MH052-231	1		A4

Note:Drawing No. Subject to alteration without notice

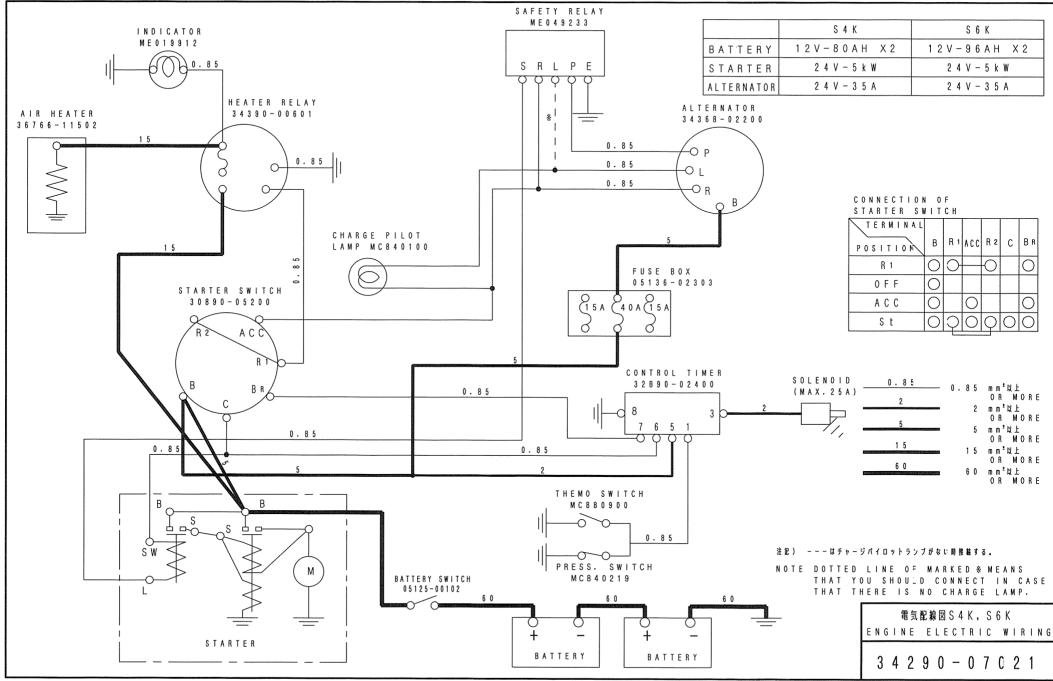


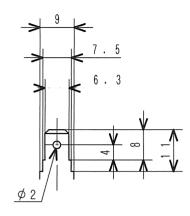


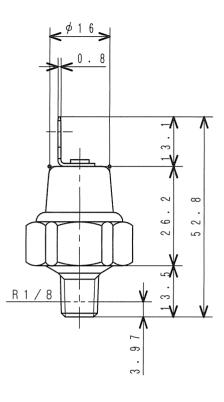
 MHI
 CONFIDENTIAL
 ③ 新 図
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 サイス・ 日引図
 2
 鋳鍛歯車品 3
 板金溶接品 4
 組立品

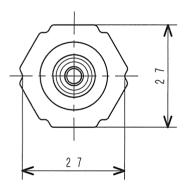
 6
 その他(購入品)









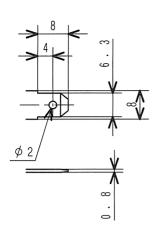


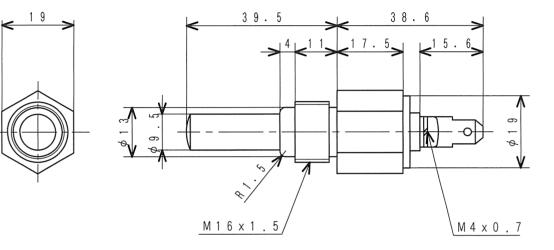
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SPECIFICATIONS				
作動圧力 OPERATING PRESS.				
作動電圧	1 2 V - 5 W			
OPERATING VOLT.	24V-5W			

<sup>オイルプレッシャスイッチ</sup> SWITCH, OIL PRESSURE

MC840-219



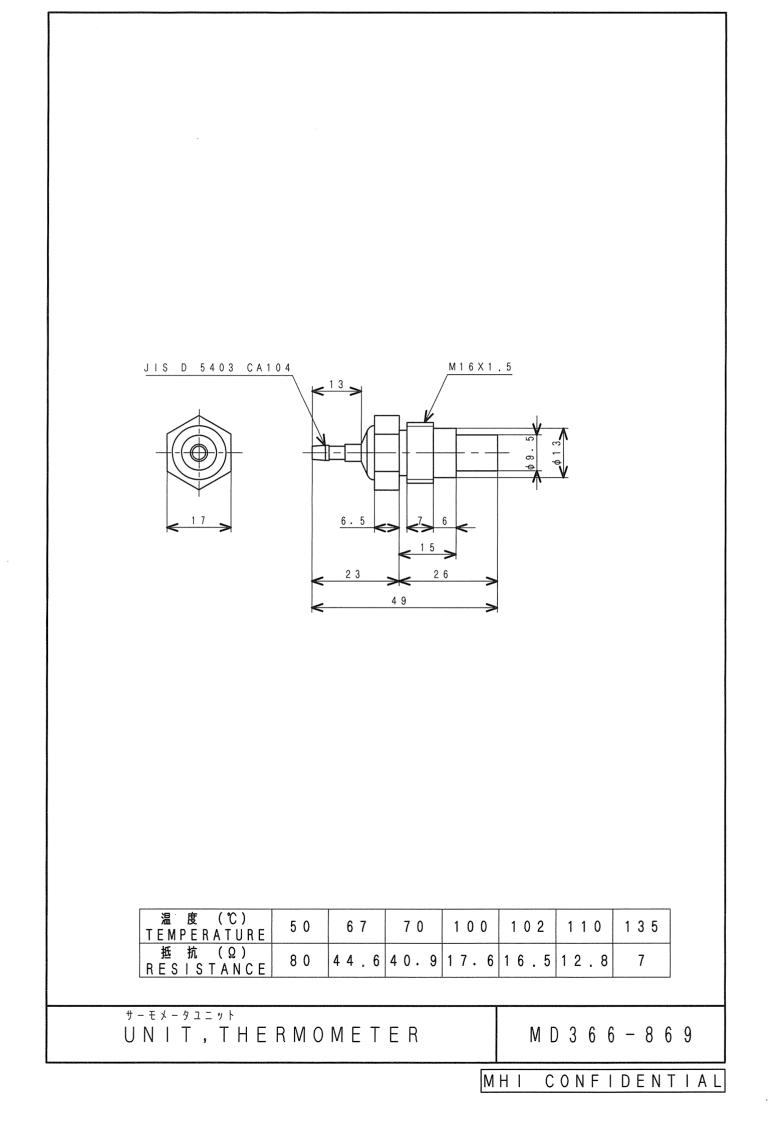


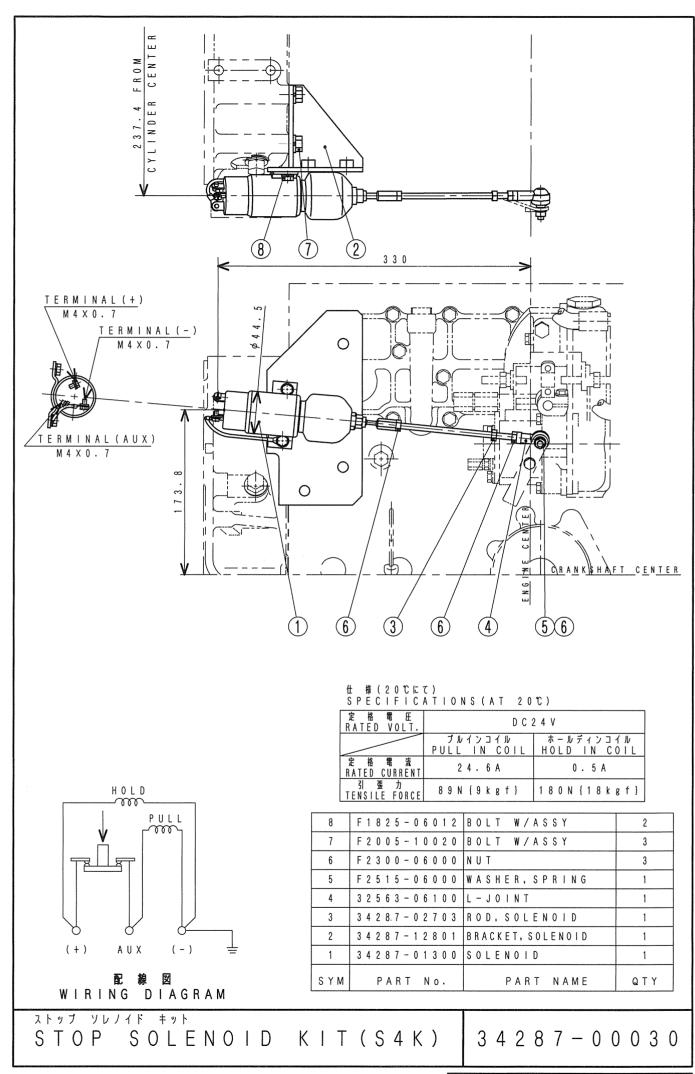
部品番号 PART No.	OPERA	序動温度 ∖TING TEMP	-
	温度下降時 DECREASE	≦ 1 0 0 ℃±4℃	で接点開 OPEN
M C 8 8 0 - 9 0 0	温度上昇時 RISE	≧ 1 0 0 ℃ ± 2 ℃	で接点閉 CLOSE
MC 9 9 0 - 0 0 1	温度下降時 DECREASE	≦ 1 0 5 ℃±4℃	で接点開 OPEN
M C 8 8 0 - 9 0 1	温度上昇時 RISE	≧ 1 0 5 ℃±2℃	で 接 点 閉 C L O S E

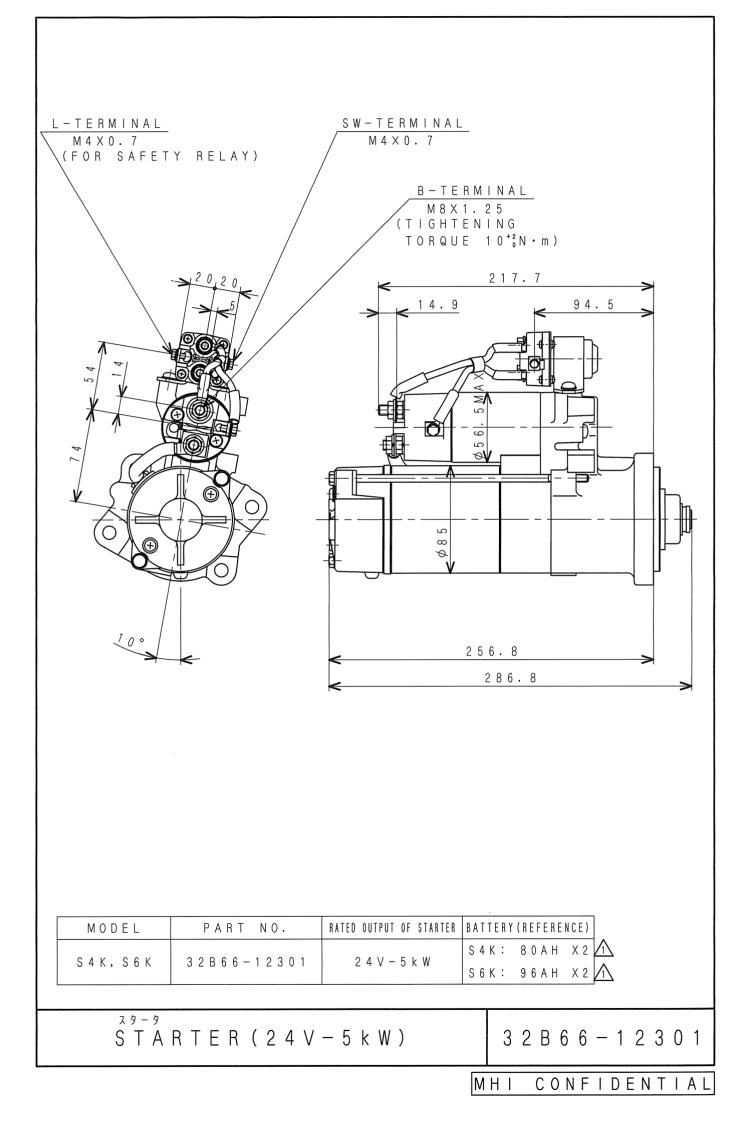
定格負荷 RATED LOADED	1A以下 MAX.	0.5A以下 MAX.
定格電圧 RATED VOLT.	1 2 V	2 4 V

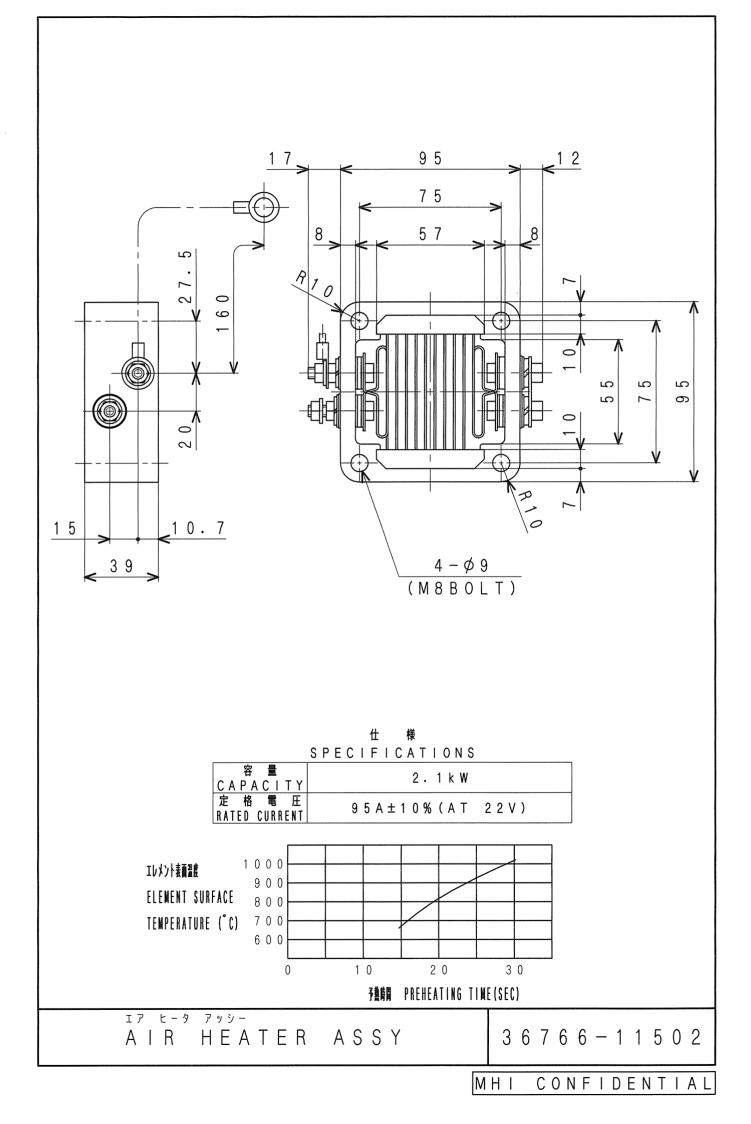
<sup>サ- モ ス イ ッ チ</sup> S W I T C H , T H E R M O

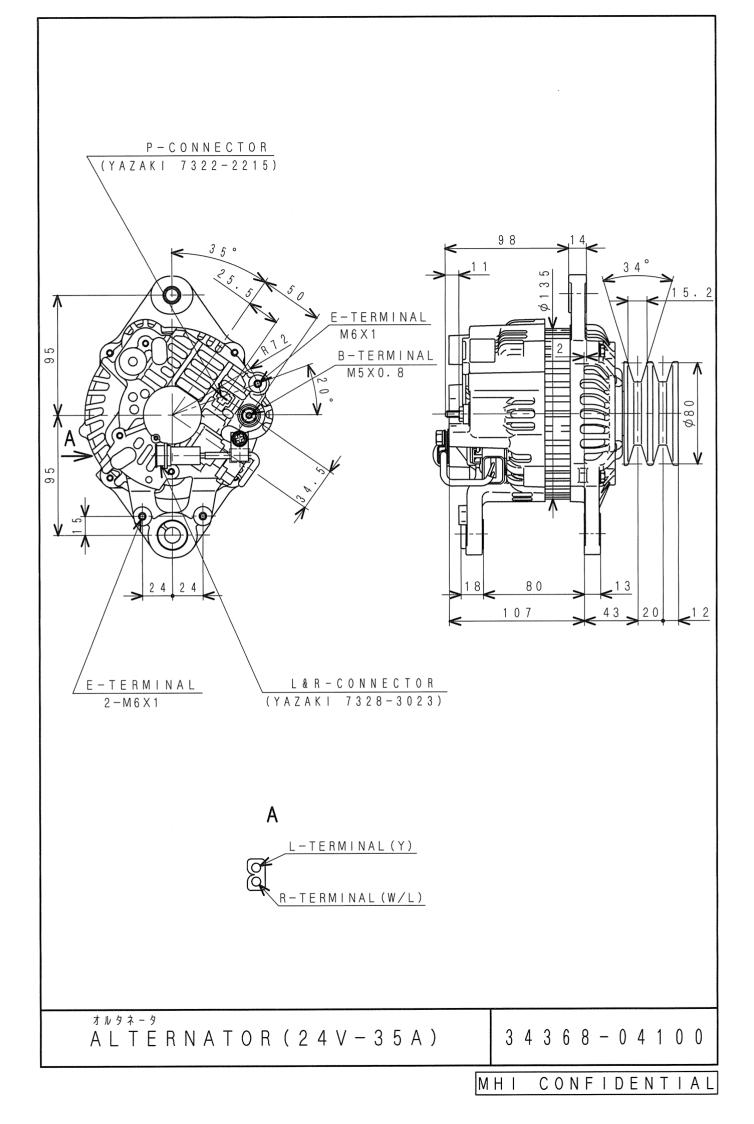
MC880-900

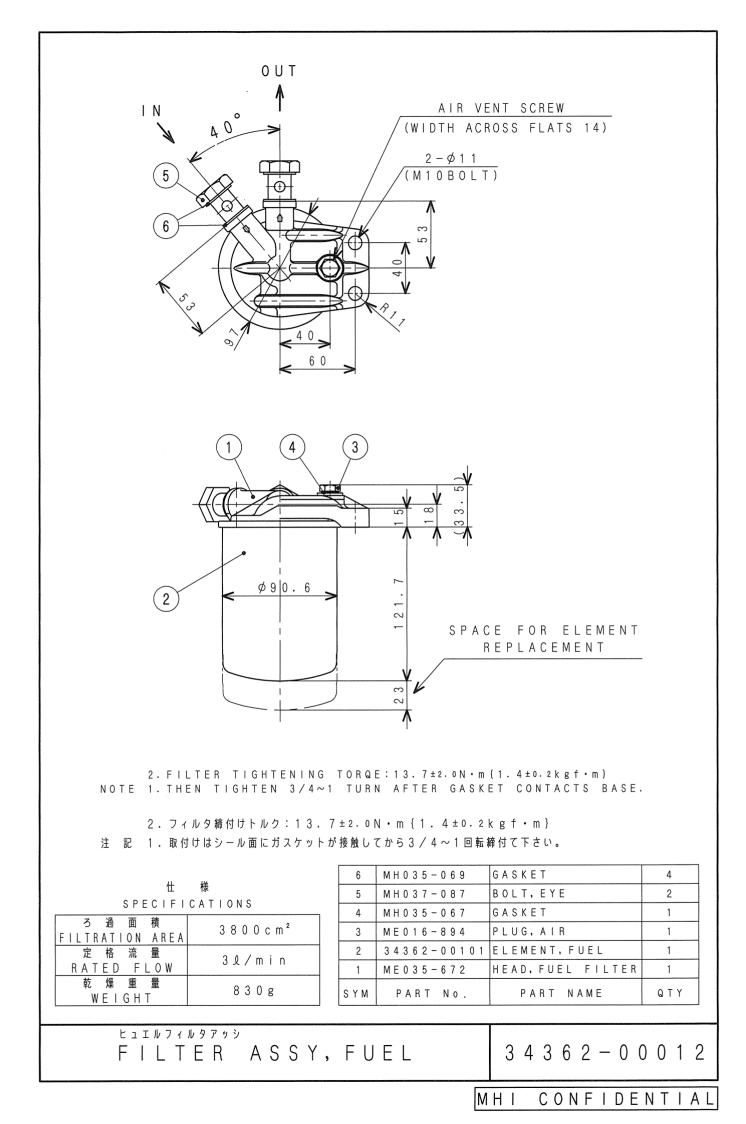


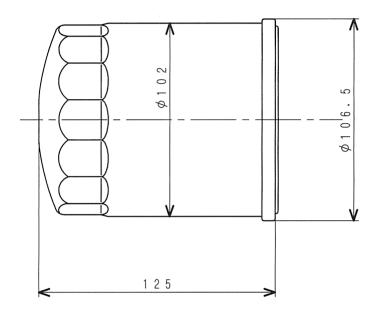












仕 様 SPECIFICATIONS

0, 20, 1, 1	0//11/0/10
瀘 過 面 積 FILTRATION AREA	0.25m²
圧 カ 損 失(定格流量時) PRESSURE LOSS	29.4kPa{0.3kgf/cm² } 以下
破 壊 圧 力 PRESS.AT FRACTORE	1.47MPa{15kgf/cm²}
エレメント差圧強度 ELEMENT PESISTANCE TO PRESS. DIFFERENCE	687kPa{7kgf/cm²}
逃し弁調整圧力 RELIEF VALVE PRESSURE	98.1±19.6kPa{1.0±0.2kgf/cm <sup>2</sup> }

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<sup>オイルフィルタ</sup> FILTER, OIL

