

Sign For Receipt
(For customer)

Sheet No.

TEIKOKU MOTOR PUMP DATA SHEET

Q FF-1843A

M/S Geneva Nitrogen LLC	DATE Nov. 19, 2013
JOB NAME ****	NO. REQ'D 2
ORDER NO. P06063/P06062	PROD. NO. FF-1843A
JOB NO. ****	ITEM NO. ****
MODEL F51-215C4DM-0405SS1-AV	SMOOTH FINISH
	Painting Color Light Gray

1. OPERATING CONDITIONS

Total Head	30 ft (9.15 m)	Capacity	3.5 GPM (13.25 L/min)
NPSHava./req.	14 ft(4.26 m) / **** ft(**** m)	Suct. Press./ Disch. Press.	12.5 PSI-G / 15.26 PSI-G
Liquid	67% Nitric Acid		
SP. GR at P.T.	1.41	Vis. at P.T.	0.75 cP
Vap. Press. at P.T.	****	Melting Point	**** °F
		Pumping Temp.	140 °F
		Suspended Solid	**** wt%

2. MOTOR (Three Phase Induction Motor)

Power Supply (3φ × 60 Hz × 460 V)

Rated Output	1.7 kW	Rated Current	3.45 A	Starting Current	17 A
Pole No.	2	Thermal Class	220	Explosion Proof	YES
TEIKOKU Rotary Guardian	YES	Thermostat Working Temp.	428 °F		

3. MATERIALS

Casing	CF-3 304L SS	Impeller	CF-3 304L SS	Shaft	304L SS
Stator Can	304L SS	Rotor Can	304L SS	Bearing	SiC
Sleeve Thrust Collar	SiC	Gasket	PTFE		

4. UTILITIES REQ'D

Motor Jacket	NONE	Casing Jacket	NONE	Circ. Tube H. Exch.	NONE
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5. ACCESSORIES & SPARE PARTS

Foundation Bolt	**** Sets	Bearing	**** Sets	Shaft Sleeve	**** Sets	Thrust Collar	**** Sets
Gasket	**** Sets	Orifice (For Discharge)	2 Sets				

6. FLUSHING

Liquid	****	Flow	**** GPM	Press.	**** MPaG
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7. DRAWINGS

Dimensional Dwg.	6E-6429	Terminal Box	4Z-8396-01	Sectional View Dwg.	4Z-8794
Material List	P-30200	Estimated Performance Curve	SFF-1843A	Connection Diagram	4N-4976-01
Orifice (For Discharge)	4N-4144-06				

8. REMARKS

Rotation: C. C. W. (Viewed From Pump Suction)

-T-USA#379497/379498

-Thermostat: b-contact

37 國際

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REV.	
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TEIKOKU ELECTRIC MFG. CO., LTD.

APPROVED BY	CHECKED BY	DESIGNED BY	DRAWN BY
<i>T. Tsuru</i>	<i>R. Maruyama</i>	<i>Y. Komatsu</i>	<i>K. Nakazumi</i>

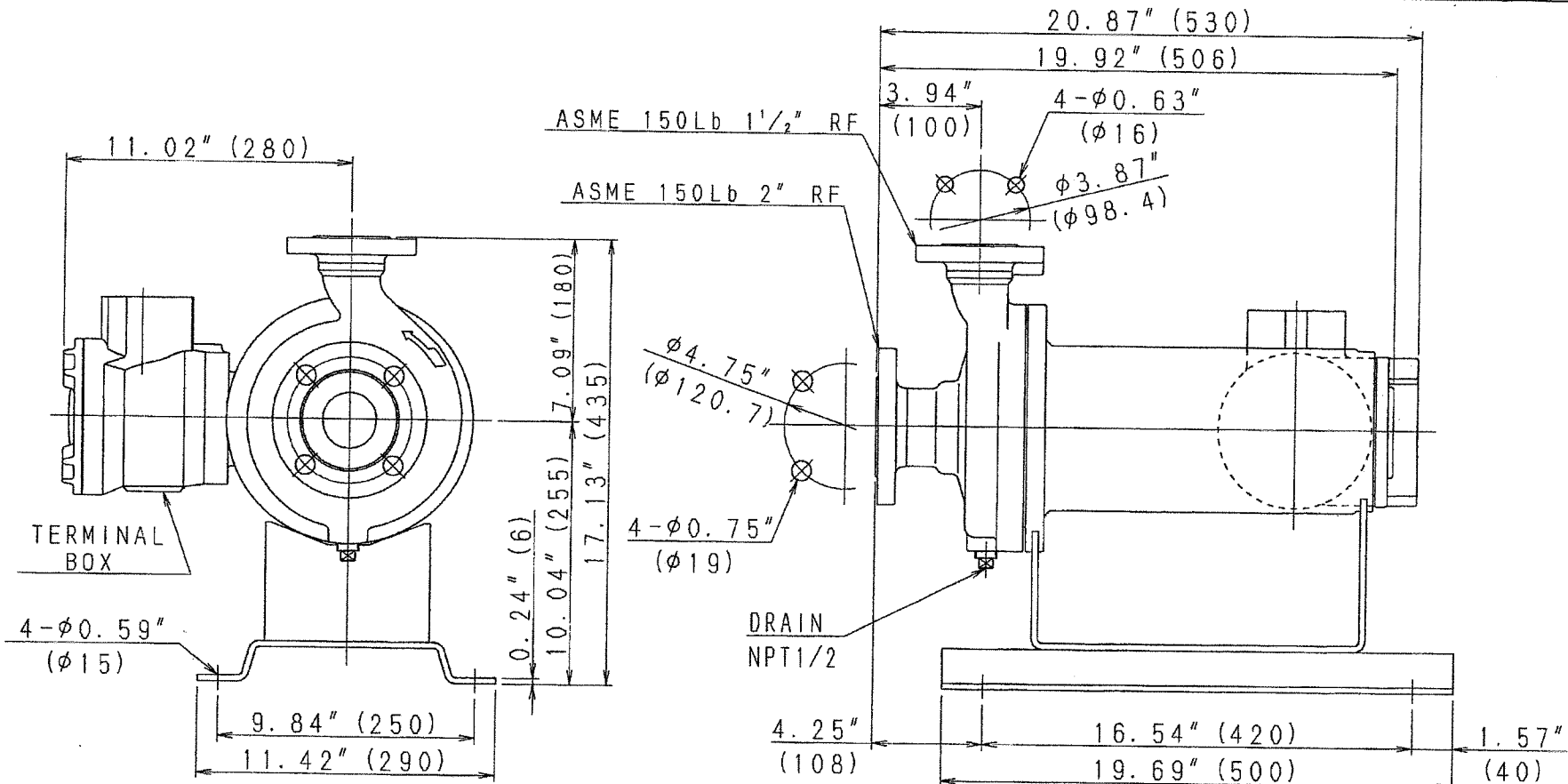
6E-6429



A

B

C



FF1843A

REVISIONS

WEIGHT	
MOTOR TYPE	Lb
215	165
216, 217	176

APPROVED	CHECKED	DRAWN	SCALE	DWG. TITLE
<i>T. Tachibana</i>	<i>R. Matsumura</i>	Y. Komatsu	FREE	外形
				TYPE: F-210-0405S1-V (A)



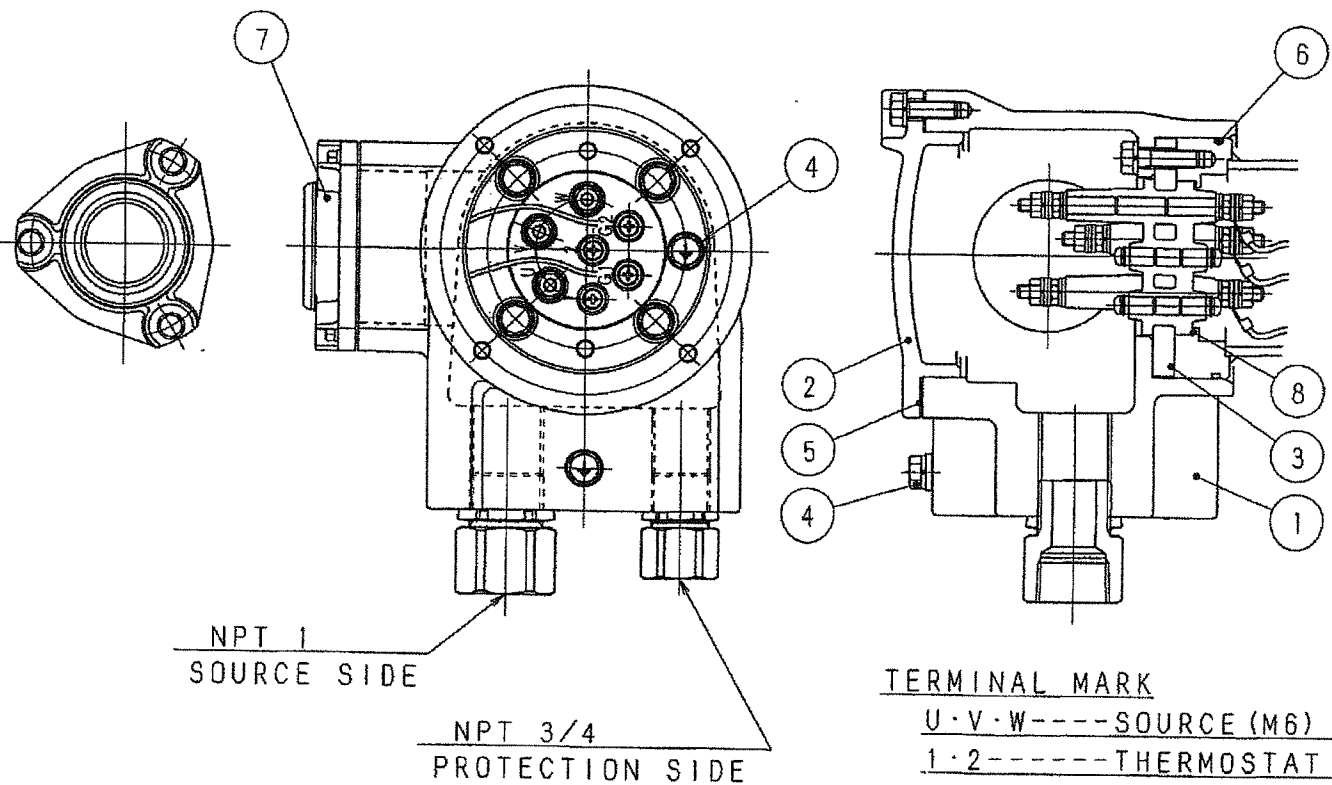
株式会社 帝国電機製作所
TEIKOKU ELECTRIC MFG. CO., LTD.

外 形
DIMENSIONAL DRAWING

DWG. NO.
6E-6429

4Z-8396-01

A
B
C
D



No.	NAME
1	TERMINAL BOX
2	TERMINAL COVER
3	TERMINAL PLATE
4	EARTH TERMINAL
5	GASKET
6	O-RING
7	TRG METER
8	O-RING

REVISIONS	B
	Rewritten Jun. 3, '11 C. Mitsumori

APPROVED	CHECKED	DRAWN	SCALE	DWG. TITLE
T. Inoue	T. Matsuoka	<i>E. Takeuchi</i> Jun. 29, '99	FREE	TERMINAL BOX

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DWG. NO. **4Z-8396-01**

B

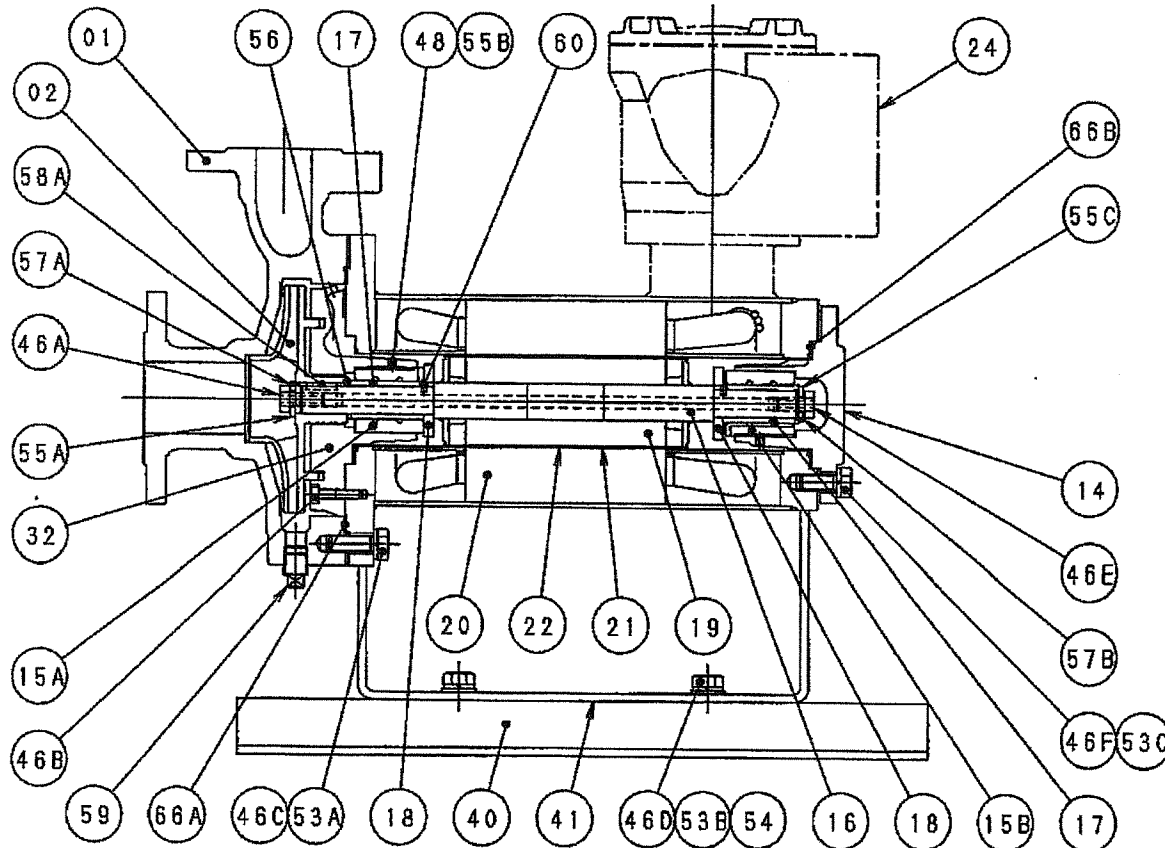
4Z-8794

NOTE

Bearing A...with spiral & straight grooves
 Bearing B...with spiral grooves



NO.	NAME OF PARTS	NO.	NAME OF PARTS
01	CASING	48	SET SCREW
02	IMPELLER		
14	R. B. HOUSING	53A	SPRING WASHER
15A	BEARING B	53B	SPRING WASHER
15B	BEARING A	53C	SPRING WASHER
16	SHAFT	54	PLAIN WASHER
17	SHAFT SLEEVE	55A	WASHER
18	THRUST COLLAR	55B	WASHER
19	ROTOR ASSY	55C	WASHER
20	STATOR ASSY	56	ADJUSTING WASHER
21	ROTOR CAN	57A	LOCK WASHER
22	STATOR CAN	57B	LOCK WASHER
24	TERMINAL BOX ASSY	58A	KEY
32	F. B. HOUSING	59	PLUG
		60	PIN
40	BASE		
41	HOLDER	66A	GASKET
46A	BOLT	66B	GASKET
46B	BOLT		
46C	BOLT		
46D	BOLT		
46E	BOLT		
46F	BOLT		



REVISIONS

APPROVED	CHECKED	DRAWN	SCALE	DWG. TITLE
T. Inoue	M. Matsumoto	R. Takeuchi	FREE	構造断面図 SECTIONAL VIEW DRAWING
		Aug-25-'99		TYPE: F-V

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DWG. NO.
4Z-8794

CP2406

MATERIAL LIST

(1/1)

NO.	NAME	MATERIAL (JIS Std./Eq. ASTM Std.)	REMARKS
01	CASING	SCS19 / CF-3 304L SS	
02	IMPELLER	SCS19 / CF-3 304L SS	
14	R. B. HOUSING	SCS19 / CF-3 304L SS	
15A	BEARING B	SiC	
15B	BEARING A	SiC	
16	SHAFT	SUS304L / 304L SS	
17	SHAFT SLEEVE	SiC	
18	THRUST COLLAR	SiC	
19	ROTOR ASS' Y		
20	STATOR ASS' Y		FRAME: 304 SS / 304 SS
21	ROTOR CAN	SUS304L / 304L SS	
22	STATOR CAN	SUS304L / 304L SS	
24	TERMINAL BOX ASS' Y	FC200 etc. / Cl. No. 35 etc.	
32	F. B. HOUSING	SCS19 / CF-3 304L SS	
40	BASE	SUS304 / 304 SS	
41	HOLDER	SUS304 / 304 SS	
46A	BOLT	SUS304L / 304L SS	
46B	BOLT	SUS304L / 304L SS	
46C	BOLT	SUS304 / 304 SS	
46D	BOLT	SUS304 / 304 SS	
46E	BOLT	SUS304L / 304L SS	
46F	BOLT	SUS304 / 304 SS	
48	SET SCREW	SUS304L / 304L SS	
53A	SPRING WASHER	SUS304 / 304 SS	
53B	SPRING WASHER	SUS304 / 304 SS	
53C	SPRING WASHER	SUS304 / 304 SS	
54	PLAIN WASHER	SUS304 / 304 SS	
55A	WASHER	SUS304L / 304L SS	
55B	WASHER	SUS304L / 304L SS	
55C	WASHER	SUS304L / 304L SS	
56	ADJUSTING WASHER	SUS304L / 304L SS	
57A	LOCK WASHER	SUS304L / 304L SS	
57B	LOCK WASHER	SUS304L / 304L SS	
58A	KEY	SUS304L / 304L SS	
59	PLUG	SUS304L / 304L SS	
60	PIN	SUS304L / 304L SS	
66A	GASKET	T/#9007-LC / PTFE	
66B	GASKET	T/#9007-LC / PTFE	
(F-V)	APPROVED	CHECKED	DRAWN
	<i>J. Koyama</i>	<i>P. Takai</i>	A. Kambayashi Aug. 02. '10

Fcl. 3-6A

P-30200

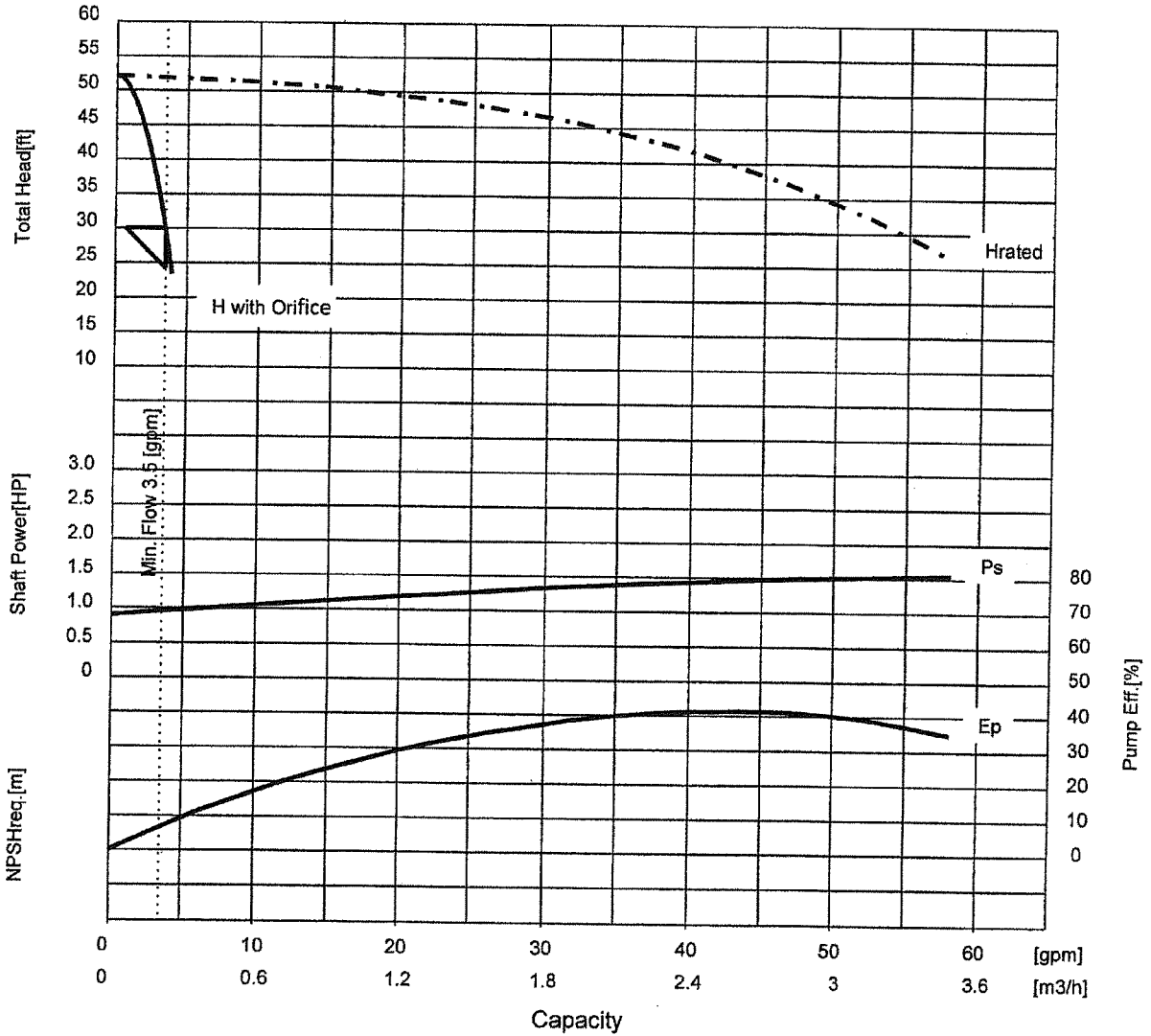


ESTIMATED PERFORMANCE CURVE

Date : Nov. 19, 2013
 No : E11F0000-01
 Dwg. No. : SFF-1843A

Item No. ****
 Model F51-215C4DM-0405SS1-AV Item Name ****

Frequency	60	Hz	Total Head	30	ft			
Voltage	460	V	Capacity	3.5	gpm	0.795	m3/h	
Phase	3		Min.Flow	4	gpm	0.795	m3/h	
Pole	2		Liquid	67% Nitric Acid				
Output	2.3	HP	Temp.	140	degF			
Current	3.45	A	S.G.	1.41		Vis.	0.75	mPas
Ex-proof	d2G3		NPSHavail.	14	ft	NPSHreq.	****	ft



Remarks :

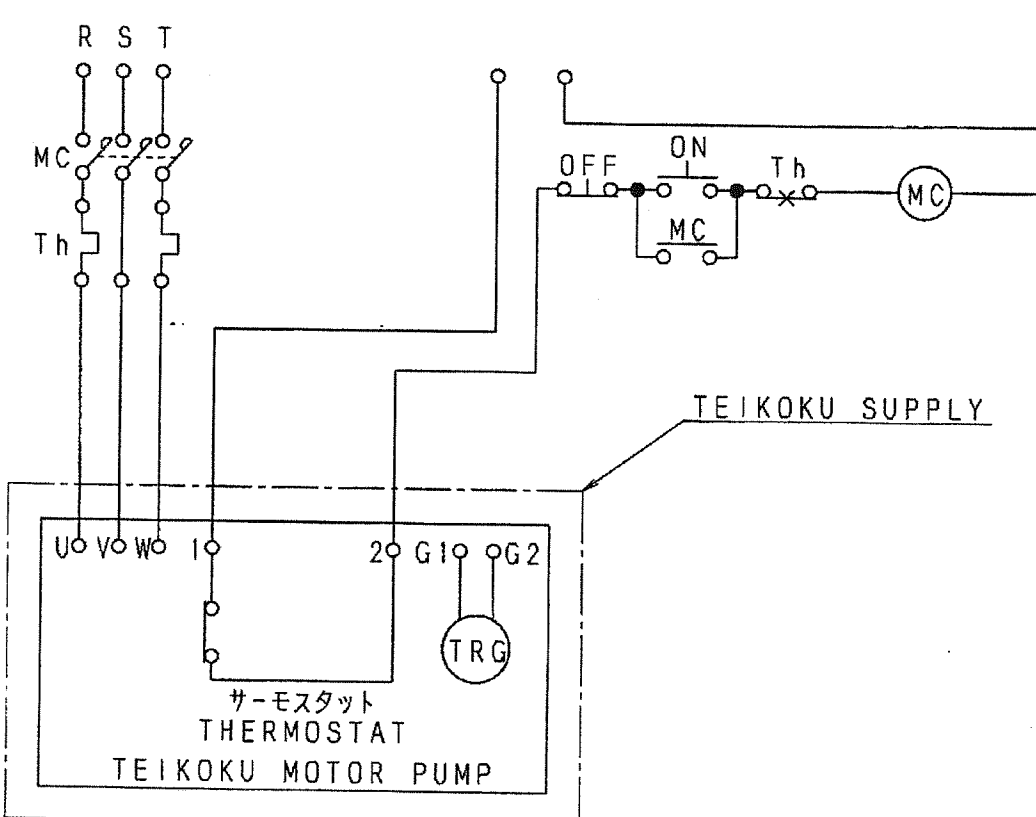
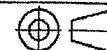
-Rated Output: 1.7kW

REV.	Date	Description

APPROVED BY	CHECKED BY	DRAWN BY
<i>T. J. Hall</i>	<i>R. Matsumura</i>	Y. Komatsu

TEIKOKU ELECTRIC MFG. CO., LTD.

4N-4976-01




Thermostat	#1	#2
Canned Motor Thermal Class	220	F-Class
RATING	428° F-OFF	302° F-OFF
b-Contactor	AC250V-6.3A	AC230V-13A
	AC110V-10A	AC115V-18A
	DC24V-1.5A	DC24V-18A

SYMBOLS	NAME
R S T	POWER TERMINAL
U V W	TMP TERMINAL
MC	MAGNETIC CONTACTOR
ON-OFF	PUSH BUTTON SWITCH
Th	THERMAL RELAY
TRG	TEIKOKU ROTARY GUARDIAN

REVISIONS	B
Revised	Hig. 11. 12
	S. Namura

APPROVED	CHECKED	DRAWN	SCALE	DWG. TITLE
M. Sakai	T. Matsuoka	S. Namura Nov. 12 ' 07	FREE	結線図 CONNECTION DIAGRAM


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DWG. NO. **4N-4976-01**

