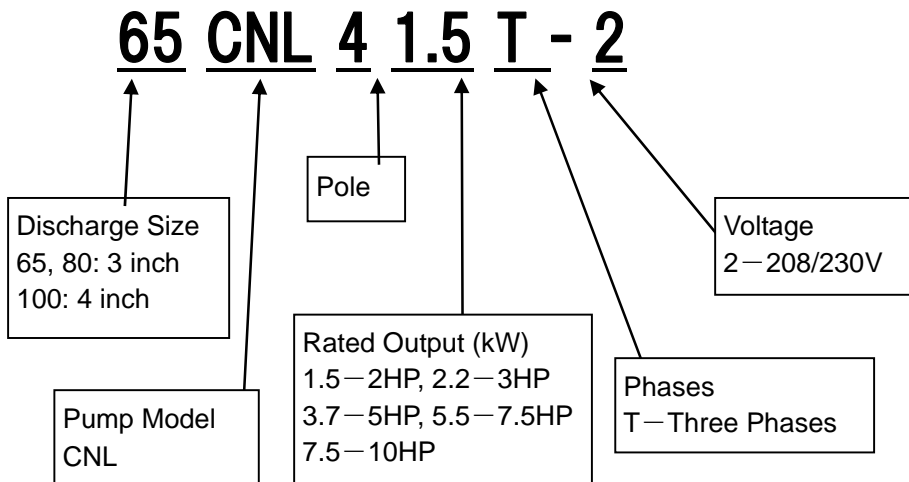


### MODEL DESIGNATION

◆ Motor model



### SPECIFICATIONS

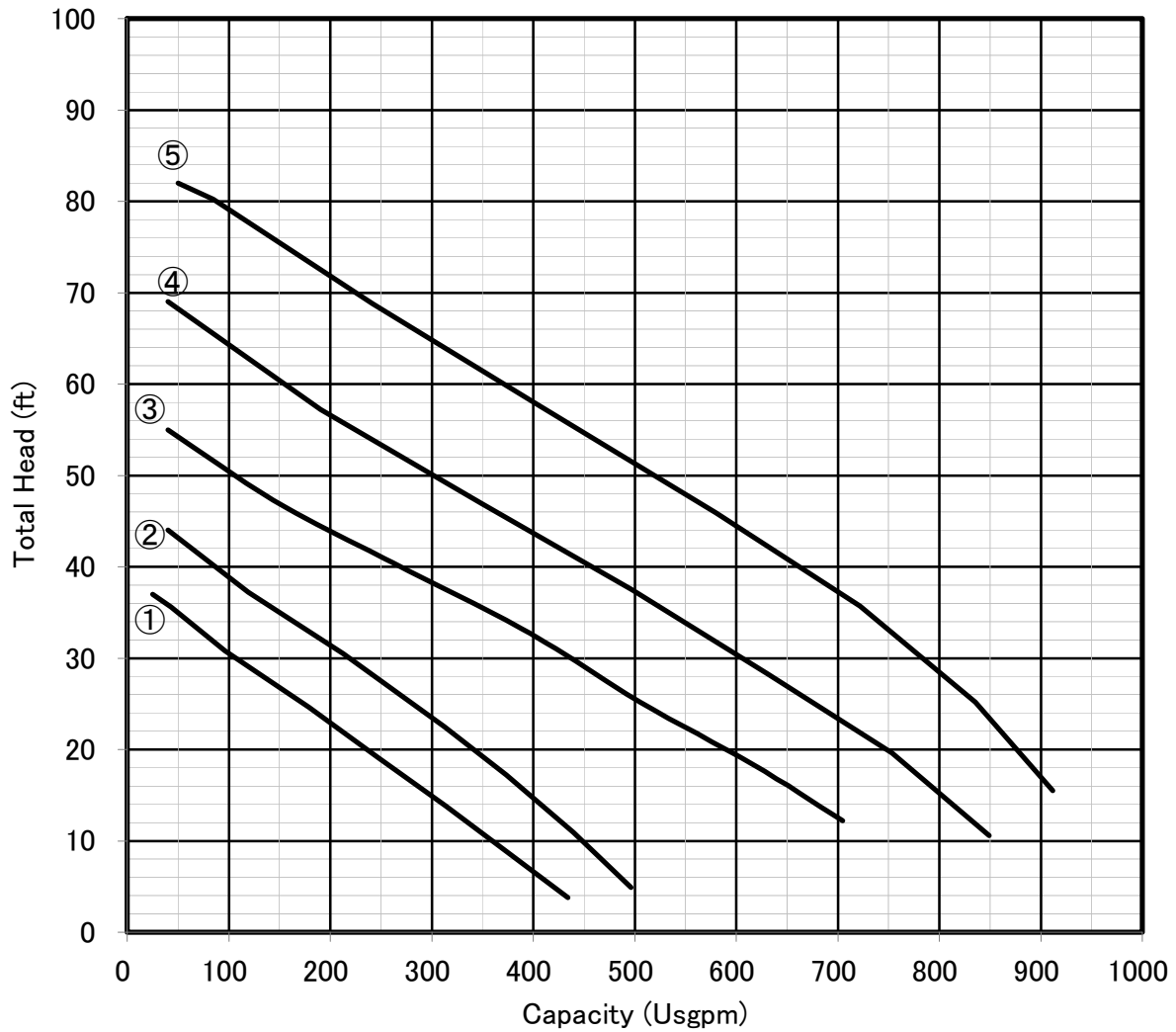
Model : CNL Series

	STANDARD	OPTIONAL
Discharge Size	3, 4 inch	
Solid Size	2, 2.5 inch	
Range of HP	2, 3, 5, 7 <sup>1</sup> / <sub>2</sub> , 10 HP	
Range of Performance	Capacity 25 to 920(Usgpm) Total Head 6 to 82(ft)	
Limitation		
Type of Liquid Handled	Sewage, Waste water	
Minimum Water Temperature	32° F (0°C)	
Maximum Water Temperature	104° F (40°C)	
Motor	Insulation Class E, Three Phase	
Voltage / Hz	208/230V, 460V 60Hz	
Synchronous Speed	1800 RPM	
Impeller Type	ShinMaywa Non-Clog 2-Vane Impeller	
Material		
Pump Housing	Cast Iron (ASTM A48 Class 30)	
Impeller	Cast Iron (ASTM A48 Class 30)	
Shaft	420J2 Stainless Steel	
Motor Frame	Cast Iron (ASTM A48 Class 30)	
Fastener	304 Stainless Steel	
Mechanical Seal Materials	Double Mechanical seal	
Upper Side	Silicon Carbide / Silicon Carbide	
Lower Side	Silicon Carbide / Silicon Carbide	
Bearing		
Upper Side	Single Deep Groove Ball Bearing (AC Bearing)	
Lower Side	Single Deep Groove Ball Bearing	
Motor Protection	Thermal Protector	
Accessory	Submersible Cable	32ft(10m) Longer Cable

**SPECIFICATIONS (OPERATING CONDITION)**• **Applied Water quality**

Temperature	0-104 °F, 0-40°C
pH	6 - 9
Electric Conductivity	1,000 $\mu$ S/cm or less
DO (Dissolved Oxygen)	1 – 4 mg (O <sub>2</sub> )/ $\ell$
Chlorine Iron	1,000 mg/ $\ell$ or less
SS	3,000 mg/ $\ell$ or less
BOD, COD	1,000 mg/ $\ell$ or less
Viscosity	5cP or less
Liquid Specific Gravity	1.05 or less
Sludge Concentration	1% or less

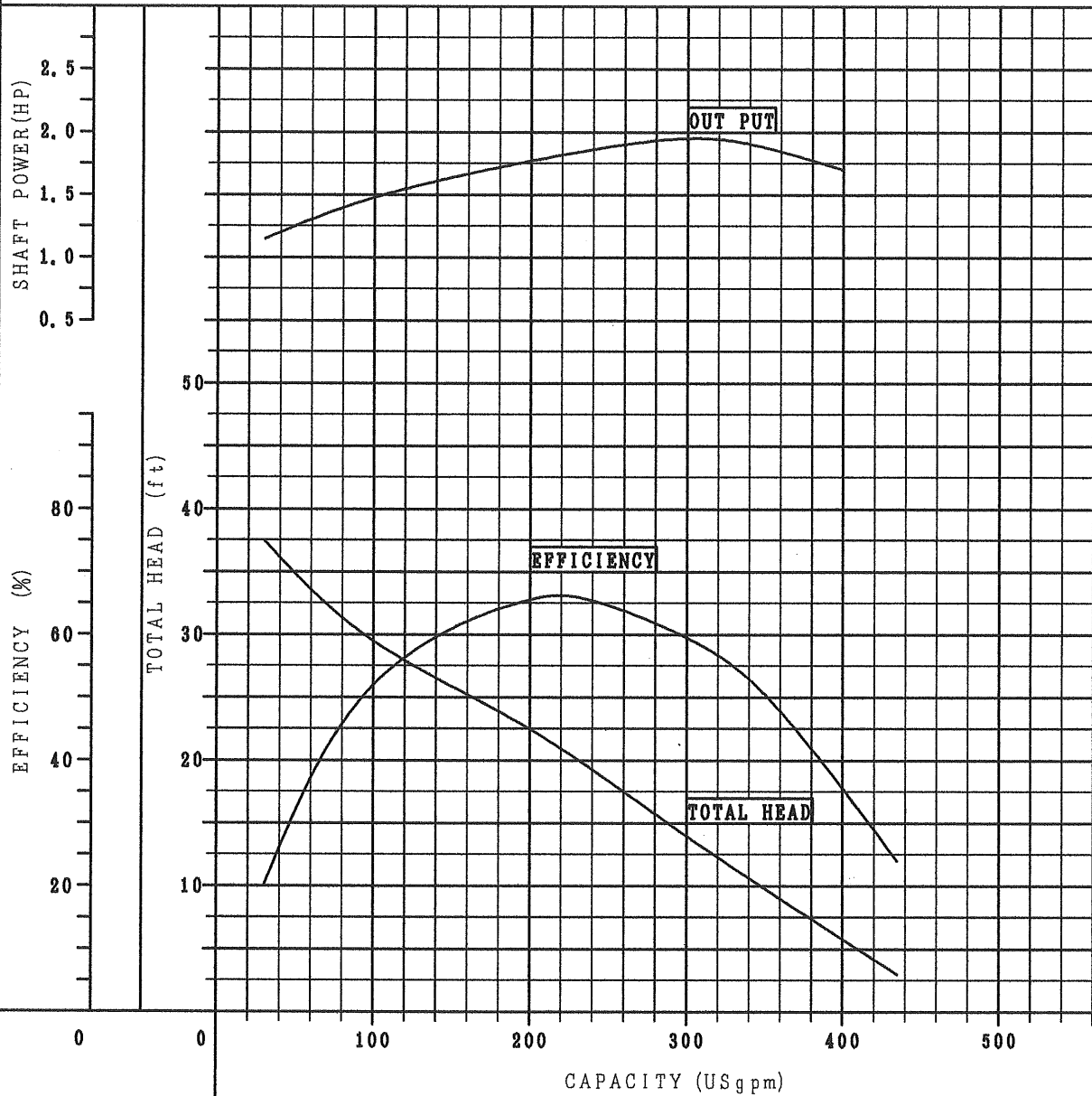
### Performance Curve (Family Curve)



① 65CNL41.5T    ② 80CNL42.2T    ③ 80CNL43.7T    ④ 100CNL45.5T    ⑤ 100CNL47.5T

MODEL : 65CNL41. 5T-2

BORE	OUT PUT		POLE	RPM	PHASE	VOLTAGE	HZ	RATED AMPERAGE	STARTING METHOD	INS. CLASS	SOLIDS DIA.
	HP	kW									
2.5" (65mm)	2	1.5	4	1800	3	230	60	6.5	Direct	E	2" (50mm)



Performance with clear water and ambient temp Max. 32°C


TITLE

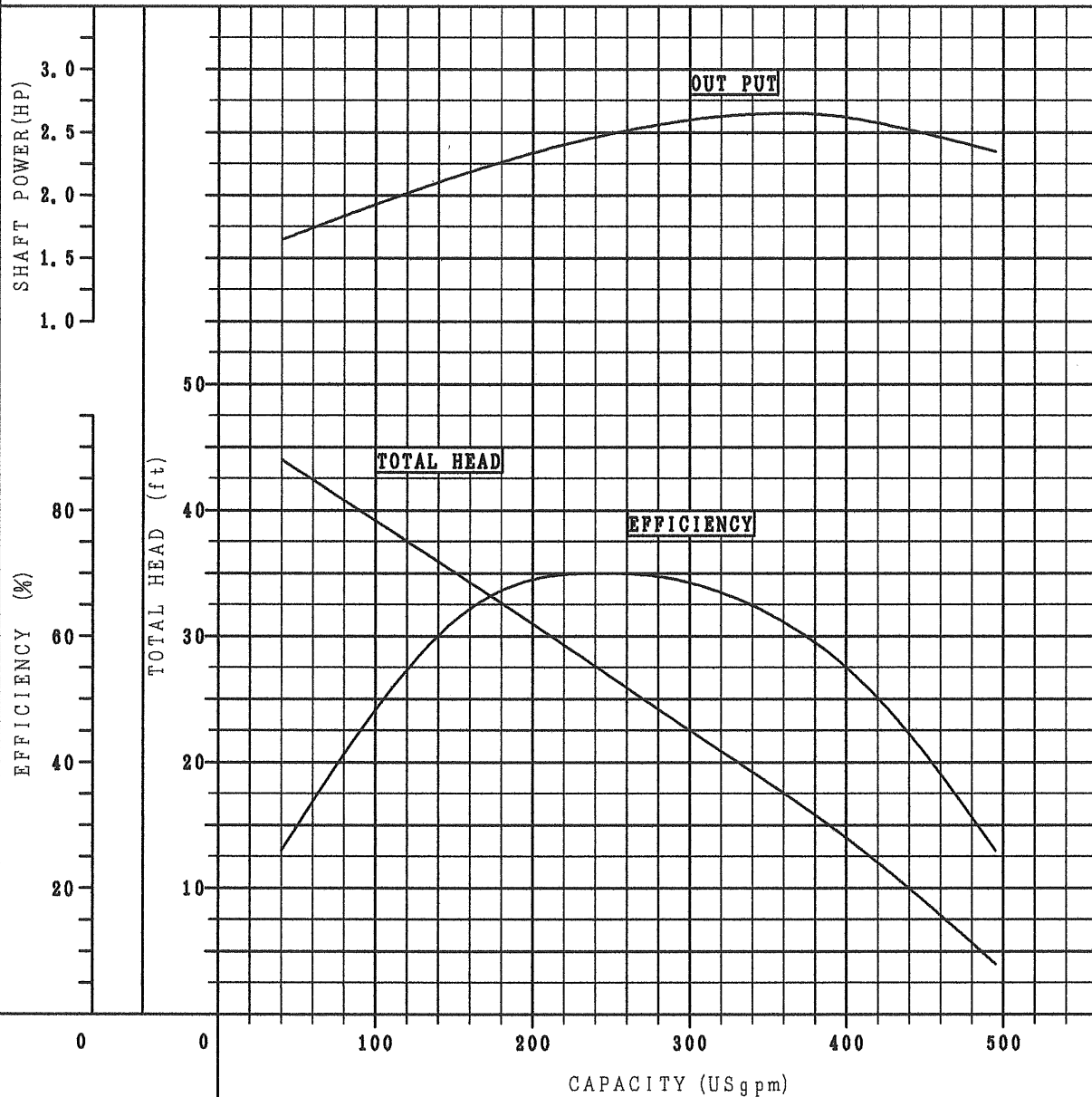
**PERFORMANCE CURVE**

DWG No.

**Y400576**

MODEL : 80CNL42. 2T-2

BORE	OUT PUT		POLE	RPM	PHASE	VOLTAGE	HZ	RATED AMPERAGE	STARTING METHOD	INS. CLASS	SOLIDS DIA.
	HP	kW									
3" (80mm)	3	2.2	4	1800	3	230	60	8.9	Direct	E	2" (50mm)

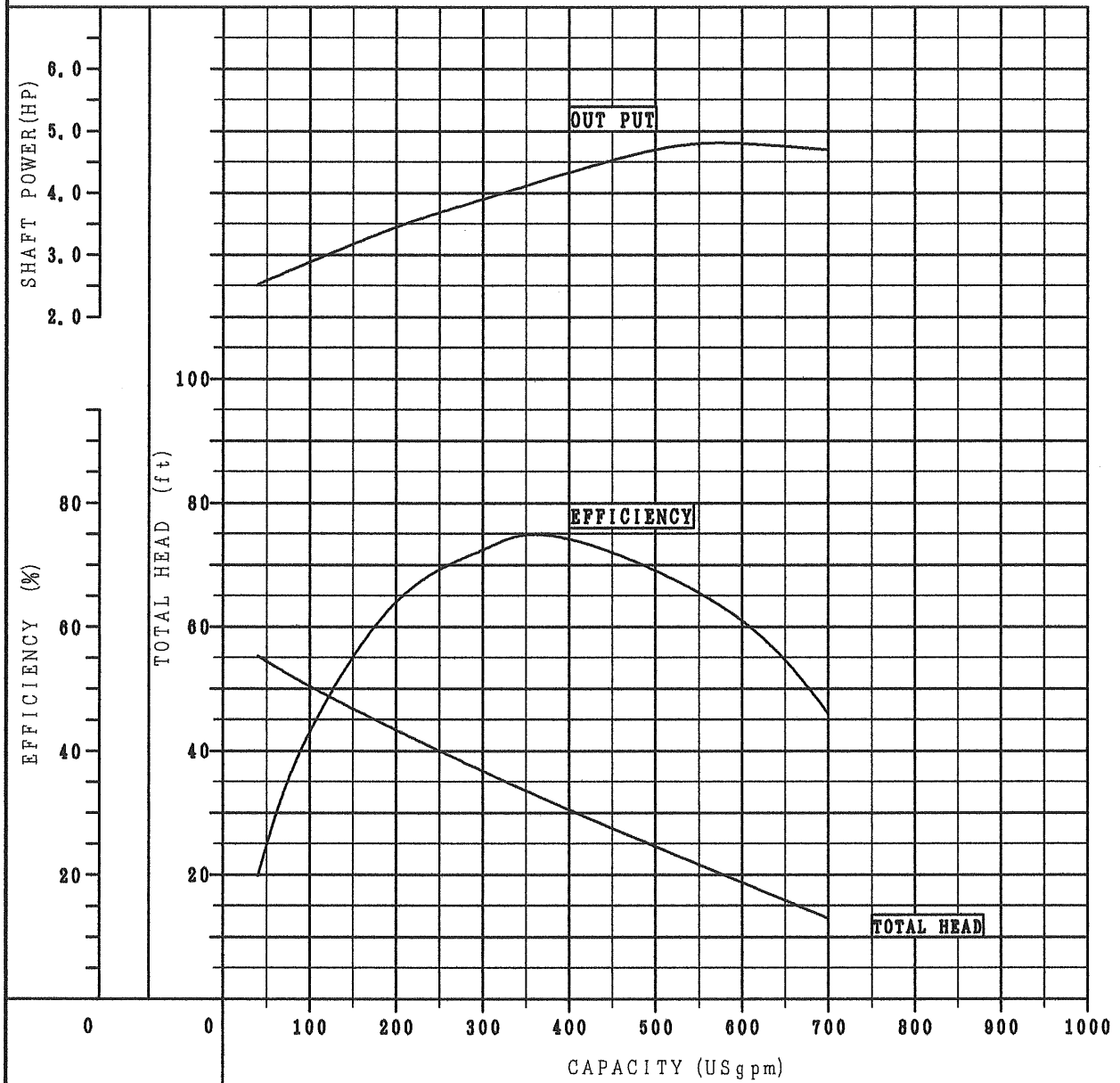


Performance with clear water and ambient temp Max. 32°C

			TITLE	DWG No.
			<b>PERFORMANCE CURVE</b>	<b>Y400577</b>

MODEL : 80CNL43. 7T-2

BORE	OUT PUT		POLE	RPM	PHASE	VOLTAGE	HZ	RATED AMPERAGE	STARTING METHOD	INS. CLASS	SOLIDS DIA.
	HP	KW									
3" (80mm)	5	3.7	4	1800	3	230	60	14.0	Direct	E	2.5" (65mm)

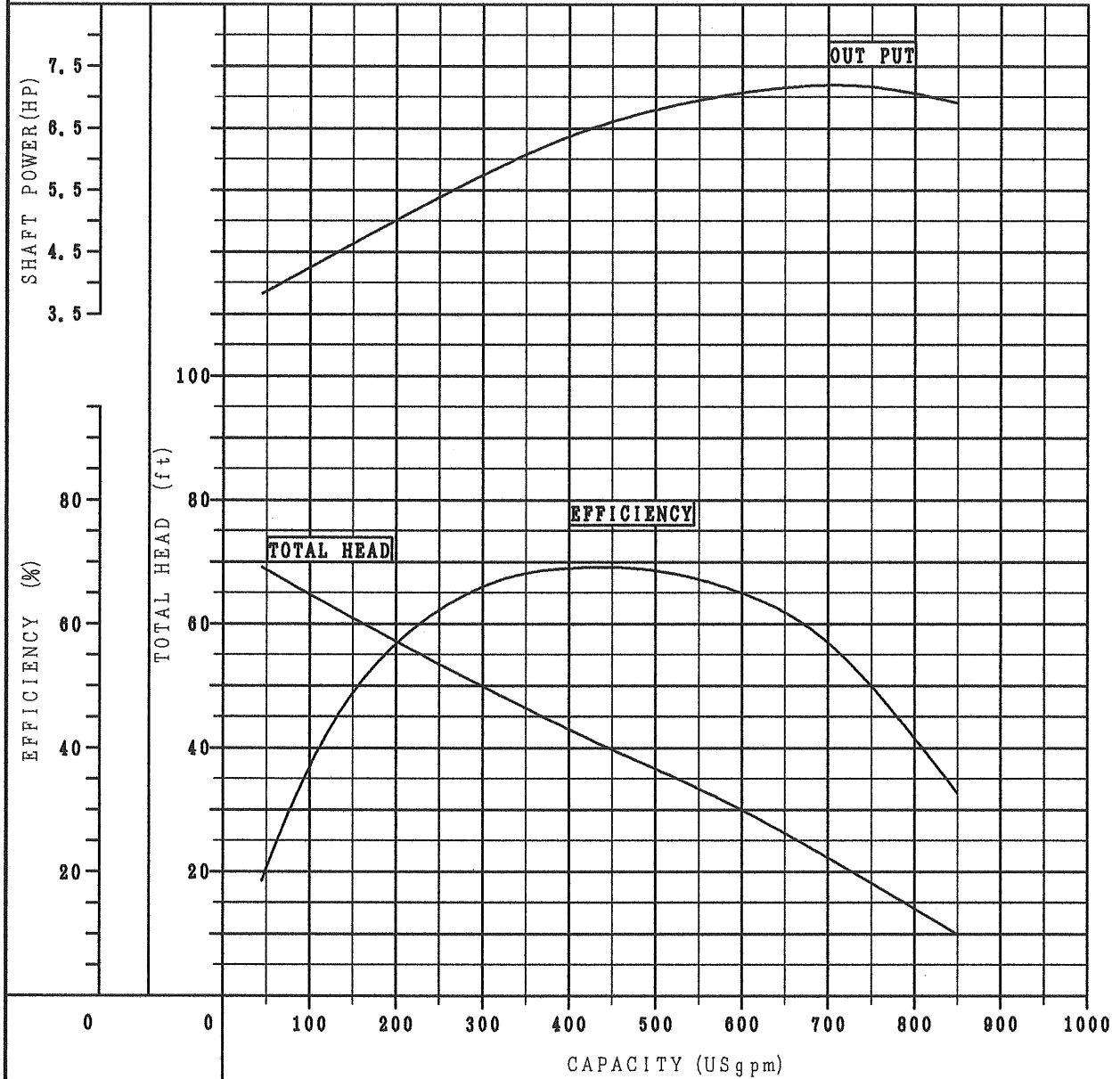


Performance with clear water and ambient temp Max. 32°C

			TITLE	DWG No.
			<b>PERFORMANCE CURVE</b>	<b>Y400578</b>

MODEL : 100CNL45. 5T-2

BORE	OUT PUT		POLE	RPM	PHASE	VOLTAGE	HZ	RATED AMPERAGE	STARTING METHOD	INS. CLASS	SOLIDS DIA.
	HP	kW									
3" (80mm)	7.5	5.5	4	1800	3	230	60	21.4	Direct	E	2.5" (65mm)



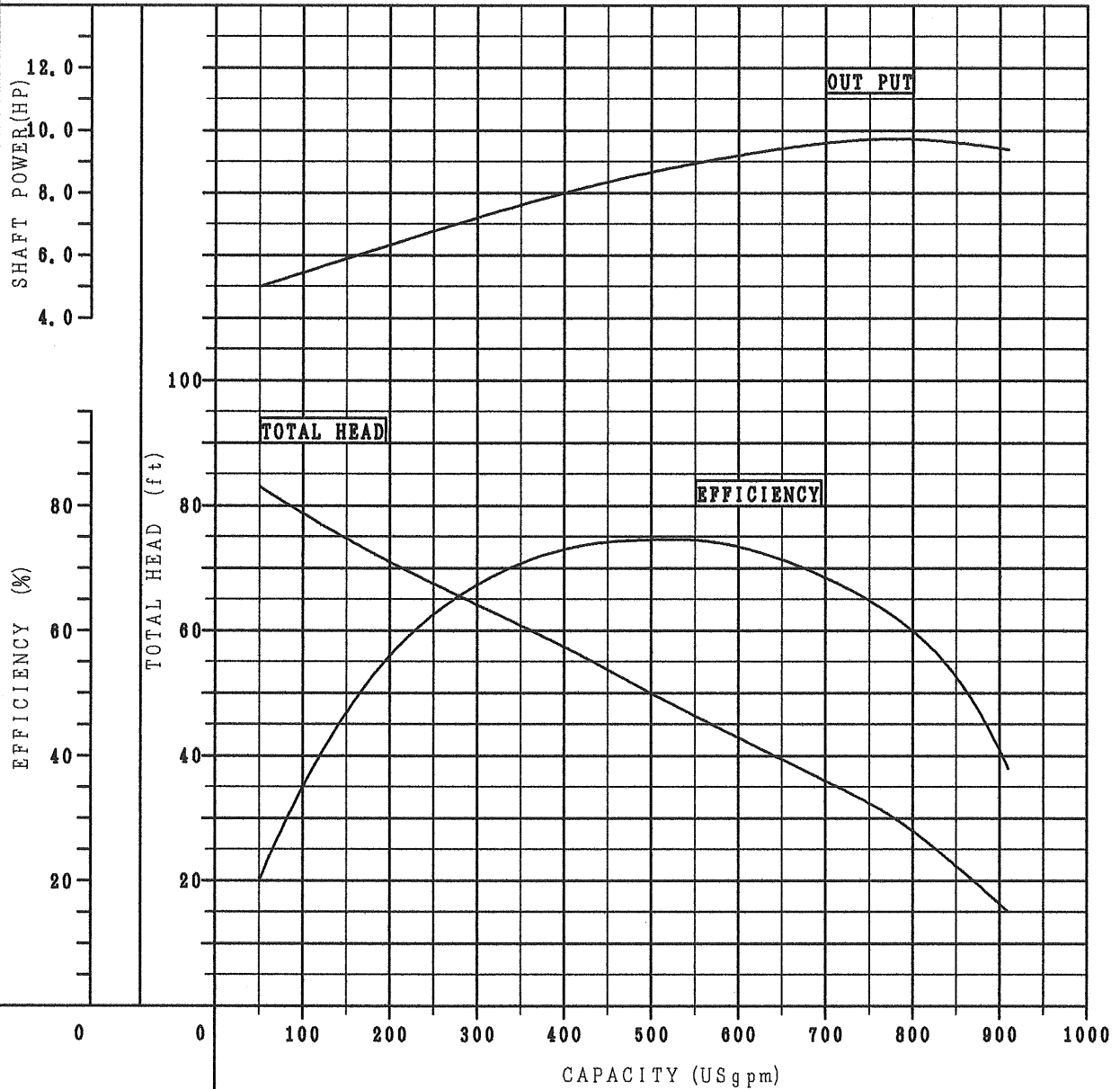
Performance with clear water and ambient temp Max. 32°C

TITLE				DWG No.	
PERFORMANCE CURVE				Y400579	



MODEL : 100CNL47.5T-2

BORE	OUT PUT		POLE	RPM	PHASE	VOLTAGE	HZ	RATED AMPERAGE	STARTING METHOD	INS. CLASS	SOLIDS DIA.
	HP	KW									
3" (80mm)	10	7.5	4	1800	3	230	60	29.0	Direct	E	2.5" (65mm)



Performance with clear water and ambient temp Max. 32°C


TITLE

**PERFORMANCE CURVE**

DWG No.

**Y400578**

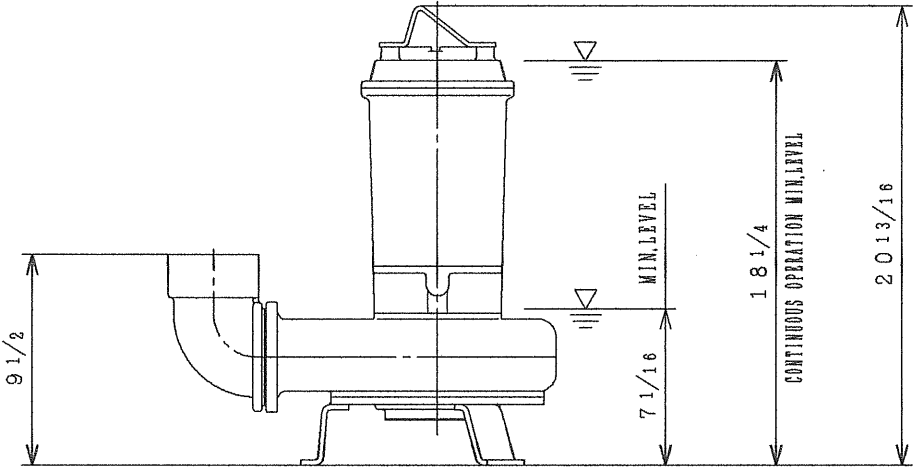
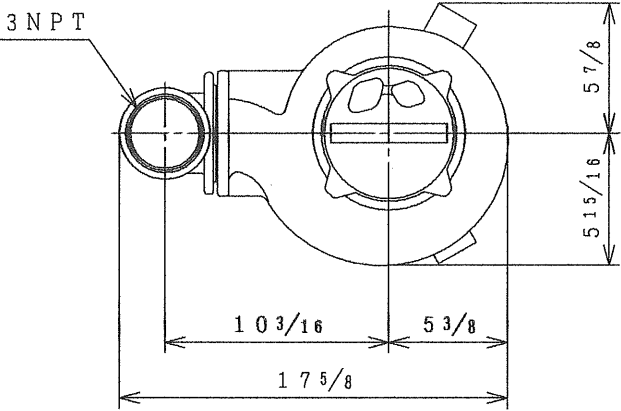
S 60Hz

**ShinMaywa**

STAND ALONE INSTALLATION TYPE PUMP DIMENSION

DIMENSION: inch

MODEL	RATED POWER (HP)	FREQ.
65CNL41.5T-2 (-F)	2	60



[Note] Limit operation to maximum 30 minutes in the event of operating the pump at the minimum water level. Secure designated continuous operation minimum water level in the event of continuous operation.

				TITLE	DWG No.
				PUMP DIMENSION	A 4 0 1 7 8 1

K P H

**ShinMaywa Industries, Ltd.**

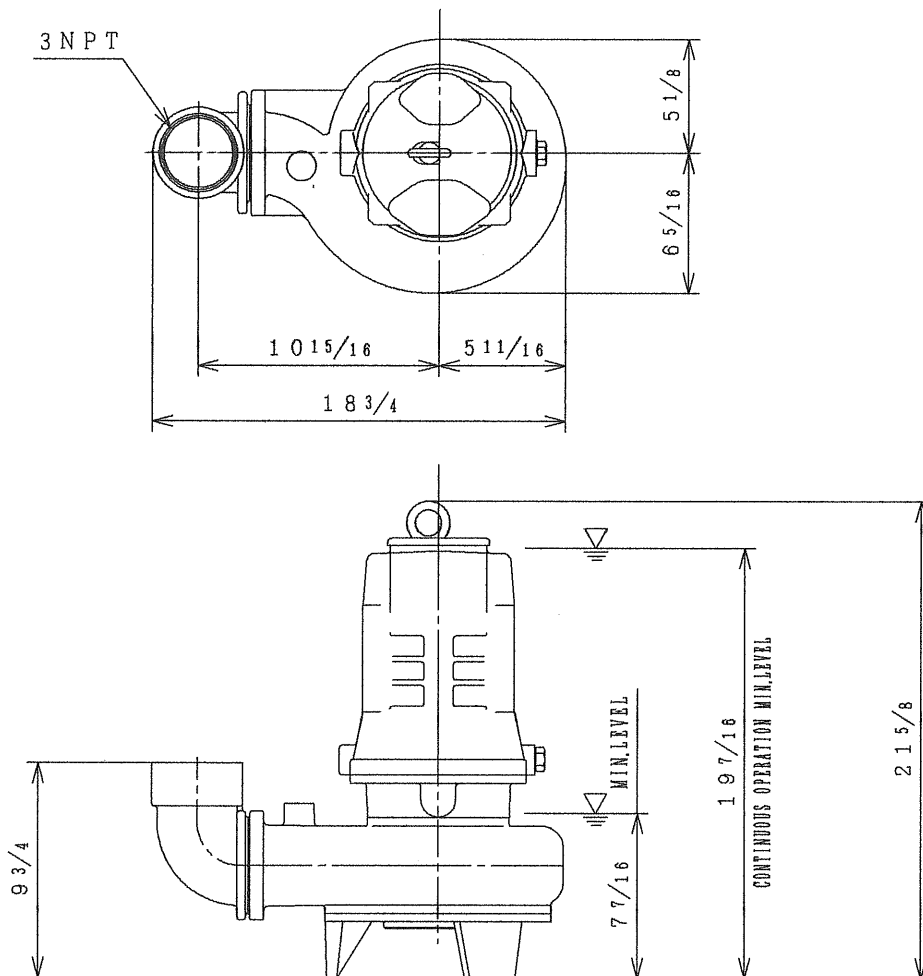
S 60Hz

**ShinMaywa**

STAND ALONE INSTALLATION TYPE PUMP DIMENSION

DIMENSION: inch

MODEL	RATED POWER (HP)	FREQ.
80CNL42.2T-2(-F)	3	60



[Note] Limit operation to maximum 30 minutes in the event of operating the pump at the minimum water level.  
Secure designated continuous operation minimum water level in the event of continuous operation.

				TITLE	DWG No.
				PUMP DIMENSION	A 4 0 1 7 8 2

K P H

**ShinMaywa Industries, Ltd.**

S 60Hz

**ShinMaywa**

STAND ALONE INSTALLATION TYPE PUMP DIMENSION

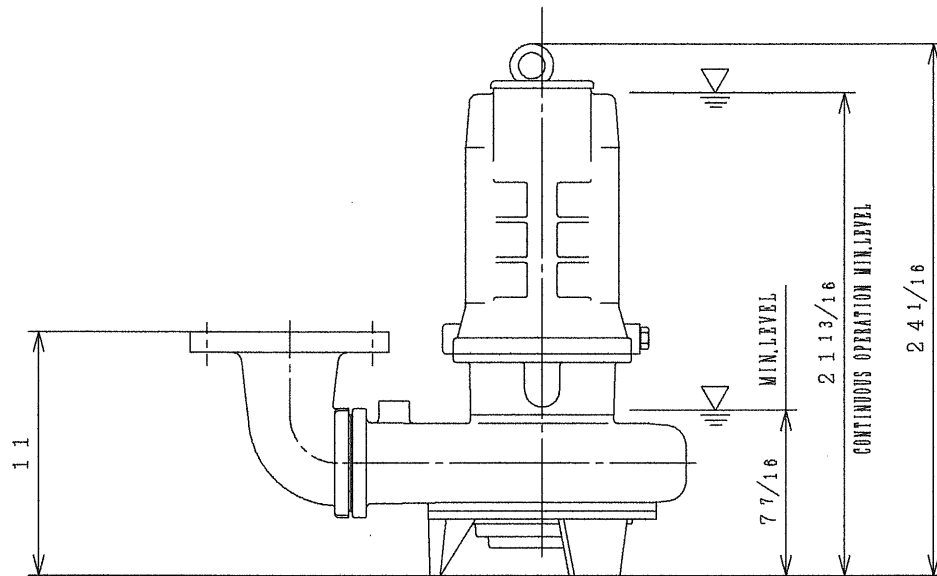
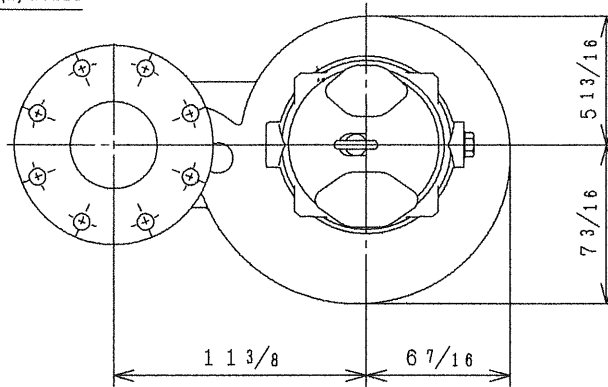
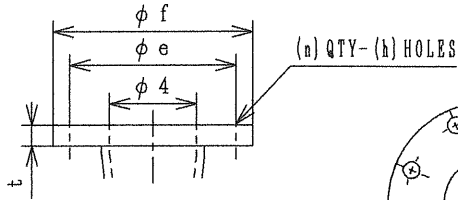
FLANGE TYPE F4BY

FLANGE (ANSI 125 PSI F, F)

e	f	t	n	h
7 1/2	9	15/16	8	3/4

MODEL	RATED POWER (HP)	FREQ.
80CNL43.7T-2	5	60

DIMENSION: inch



[Note] Limit operation to maximum 30 minutes in the event of operating the pump at the minimum water level.  
Secure designated continuous operation minimum water level in the event of continuous operation.

				TITLE	DWG No.
				PUMP DIMENSION	A 4 0 1 7 8 3

K P H

**ShinMaywa Industries, Ltd.**

S 60Hz

**ShinMaywa**

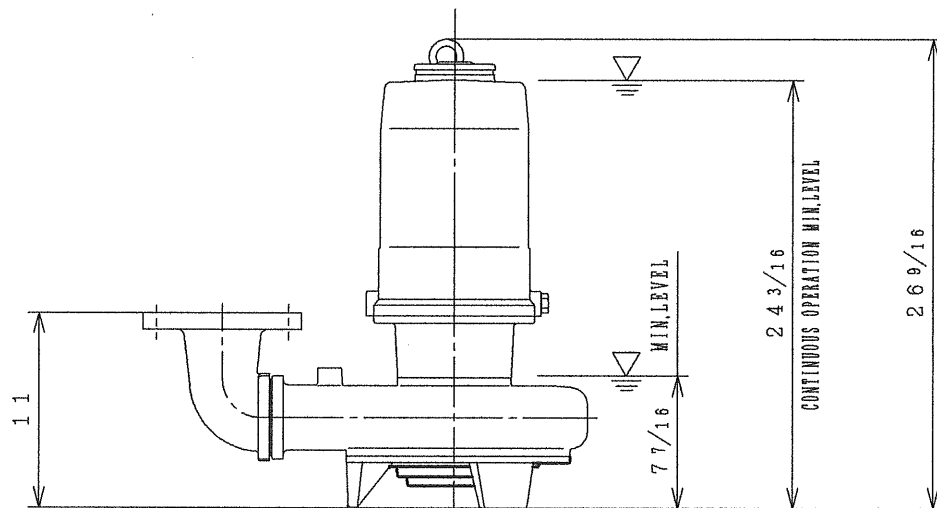
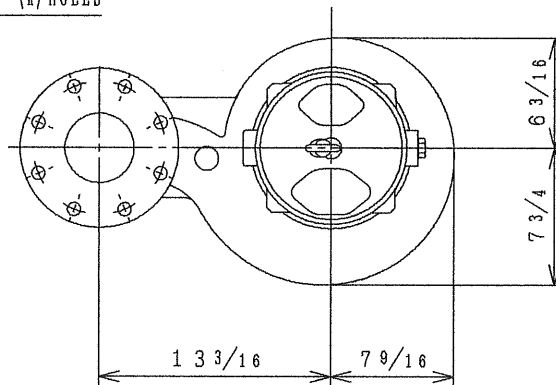
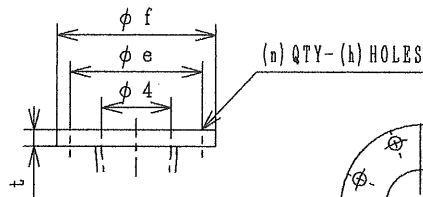
STAND ALONE INSTALLATION TYPE PUMP DIMENSION  
FLANGE TYPE F4BY

DIMENSION: inch

MODEL	RATED POWER (HP)	FREQ.
100CNL45.5T-2	7.5	60

FLANGE (ANSI 125 PSI F.F)

e	f	t	n	h
7 1/2	9	15/16	8	3/4



[Note] Limit operation to maximum 30 minutes in the event of operating the pump at the minimum water level.  
Secure designated continuous operation minimum water level in the event of continuous operation.

				TITLE	DWG No.
				PUMP DIMENSION	A 4 0 1 7 8 4

KPH

**ShinMaywa Industries, Ltd.**

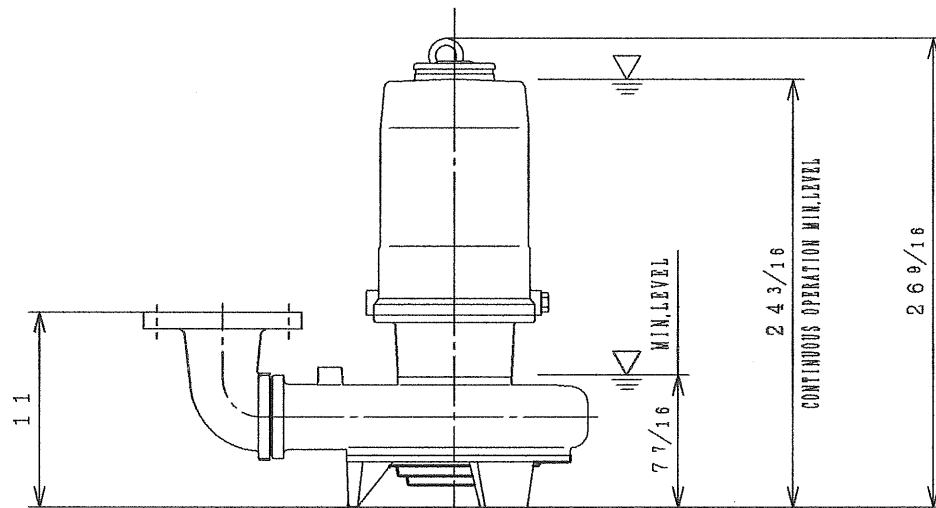
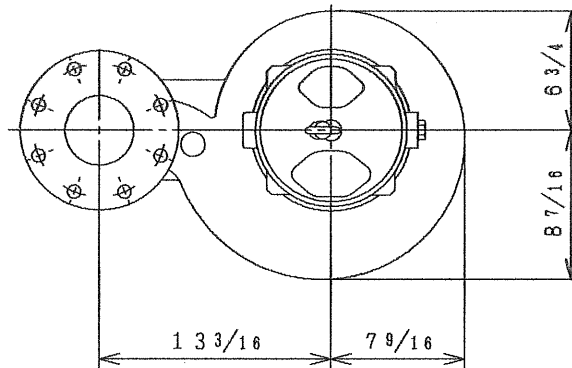
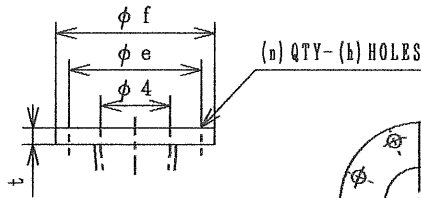
STAND ALONE INSTALLATION TYPE PUMP DIMENSION  
FLANGE TYPE F4BY

DIMENSION: inch

MODEL	RATED POWER (HP)	FREQ.
100CNL47.5T-2	10	60

FLANGE (ANSI 125 PSI F, F)

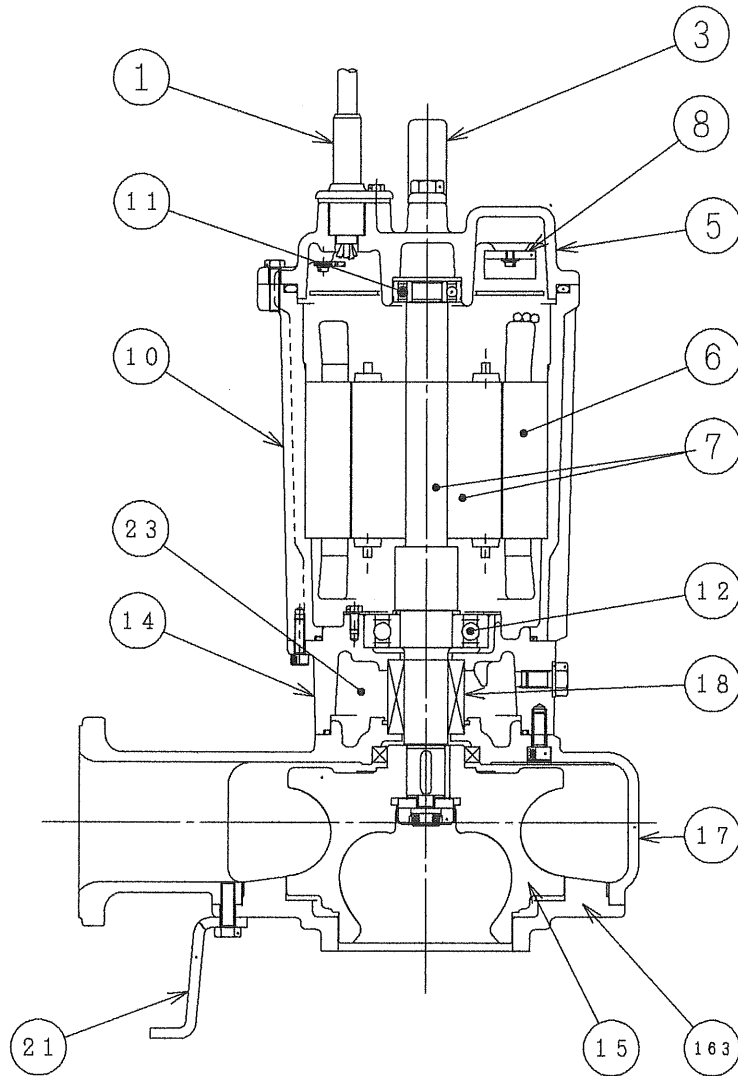
e	f	t	n	h
7 1/2	9	15/16	8	3/4



[Note] Limit operation to maximum 30 minutes in the event of operating the pump at the minimum water level.  
Secure designated continuous operation minimum water level in the event of continuous operation.

				TITLE	DWG No.
				PUMP DIMENSION	A 4 0 1 1 4 0

MODEL	OUT PUT (HP)
65CNL41, 5T-2	2




TITLE

PUMP SECTION

DWG No.

A 4 0 1 7 8 6

## MATERIALS LIST

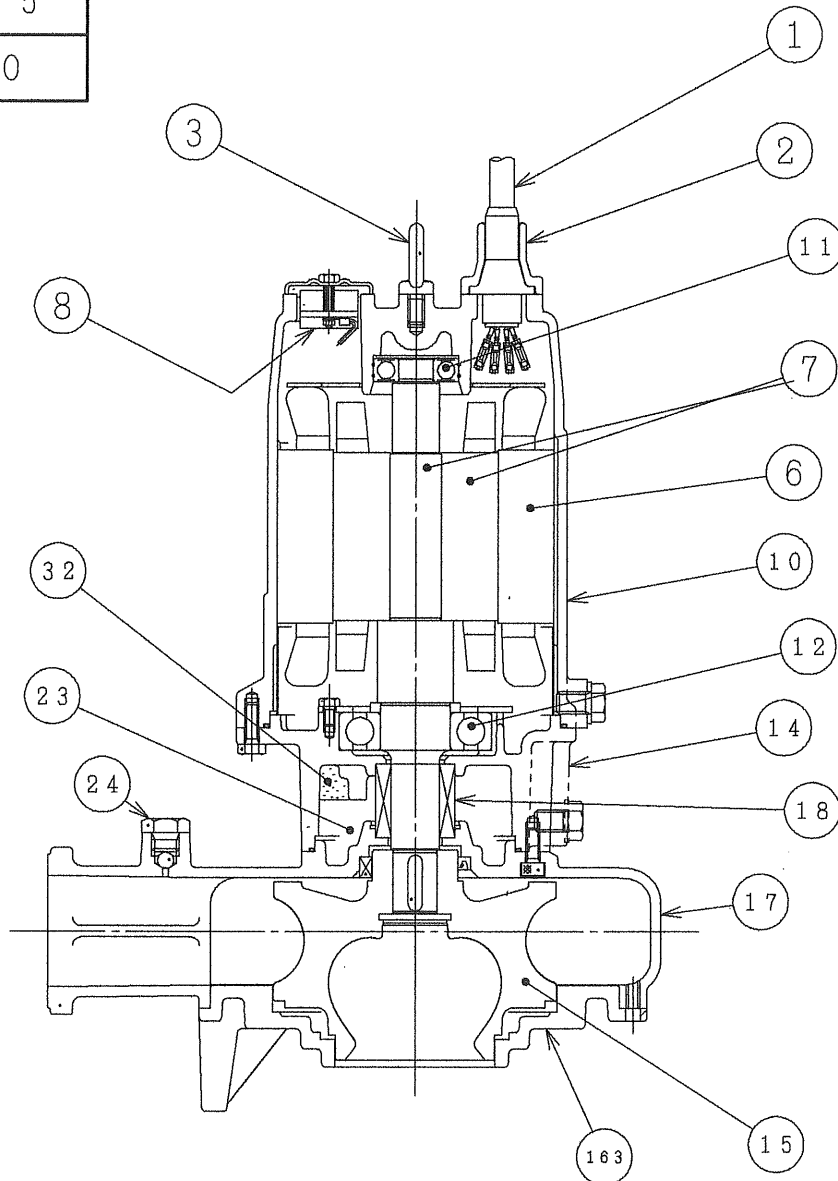
65CNL41.5T-2

No.	Denomination	Material
1	Cable(Power)	VCT Polyvinylchloride sheathed cable
3	Handle	SUS304 series (ASTM S304SERIES) Stainless Steel
5	Motor Cover	FC200 (ASTM A48 Class 30) Gray Iron Casting
6	Stator	_____
7	Rotor Assembly	Shaft=SUS420J2 Stainless Steel
8	Thermal Protector	_____
10	Stator Casing	FC200 (ASTM A48 Class 30) Gray Iron Casting
11	Ball Bearing (Upper)	_____
12	Duplex Ball Bearing (Lower)	_____
14	Oil Casing	FC200 (ASTM A48 Class 30) Gray Iron Casting
15	Impeller	FC250 (ASTM A48 Class 35) Gray Iron Casting
17	Pump Casing	FC250 (ASTM A48 Class 35) Gray Iron Casting
18	Mechanical Seal	Upper : SiC/SiC Lower : SiC/SiC
21	Stand	SS400 (ASTM A283) Mild Steel
23	Oil	Turbine Oil #32
163	Suction Cover	FC200 (ASTM A48 Class 30) Gray Iron Casting

				TITLE	DWG No.
				MATERIALS LIST	A401792



MODEL	OUT PUT (HP)
80CNL42.2T-2	3
80CNL43.7T-2	5
100CNL45.5T-2	7.5
100CNL47.5T-2	10




TITLE

PUMP SECTION

DWG No.

A 4 0 1 7 8 7

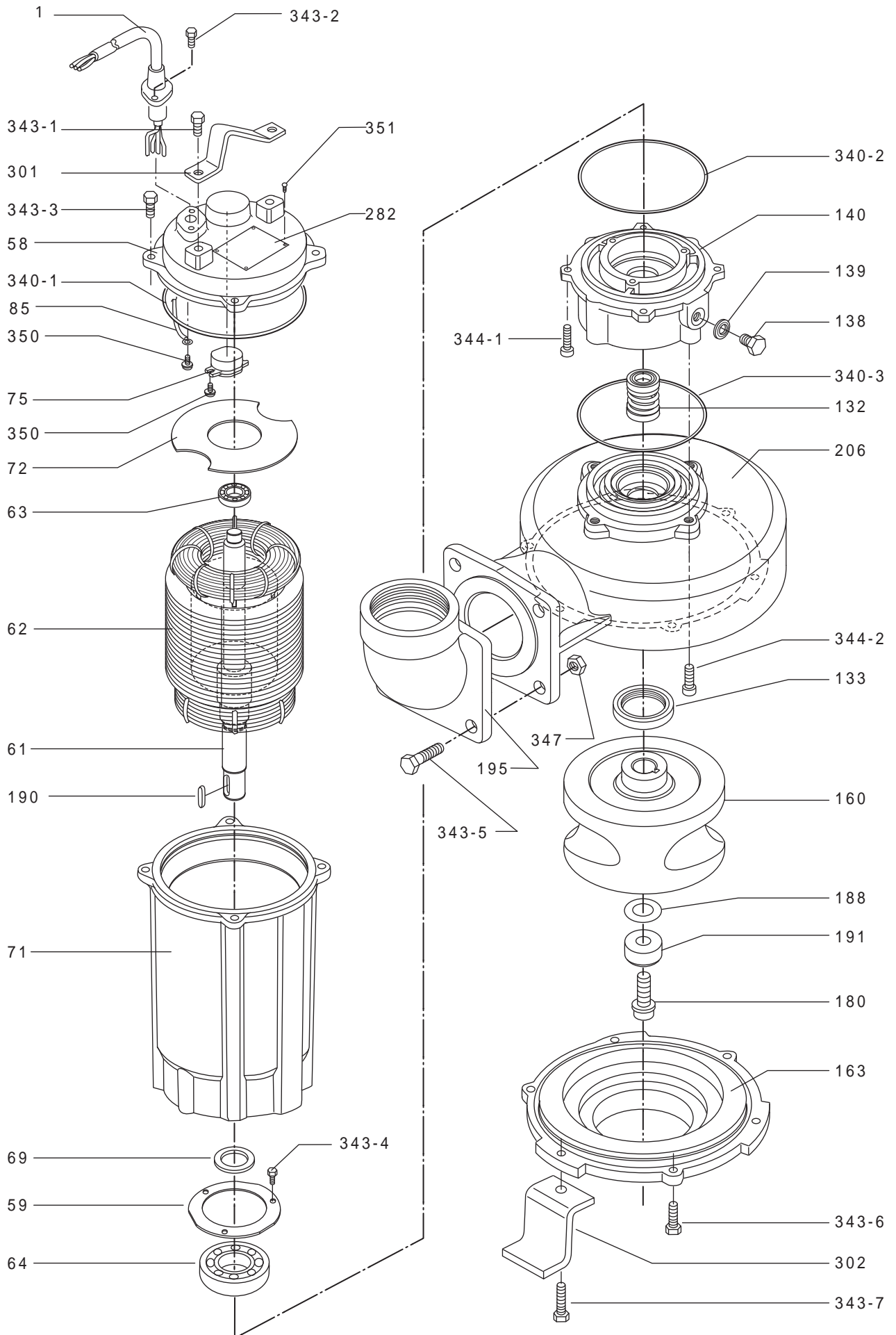
### MATERIALS LIST

80CNL42.2T-2, 80CNL43.7T-2, 100CNL45.5T-2, 100CNL47.5T-2

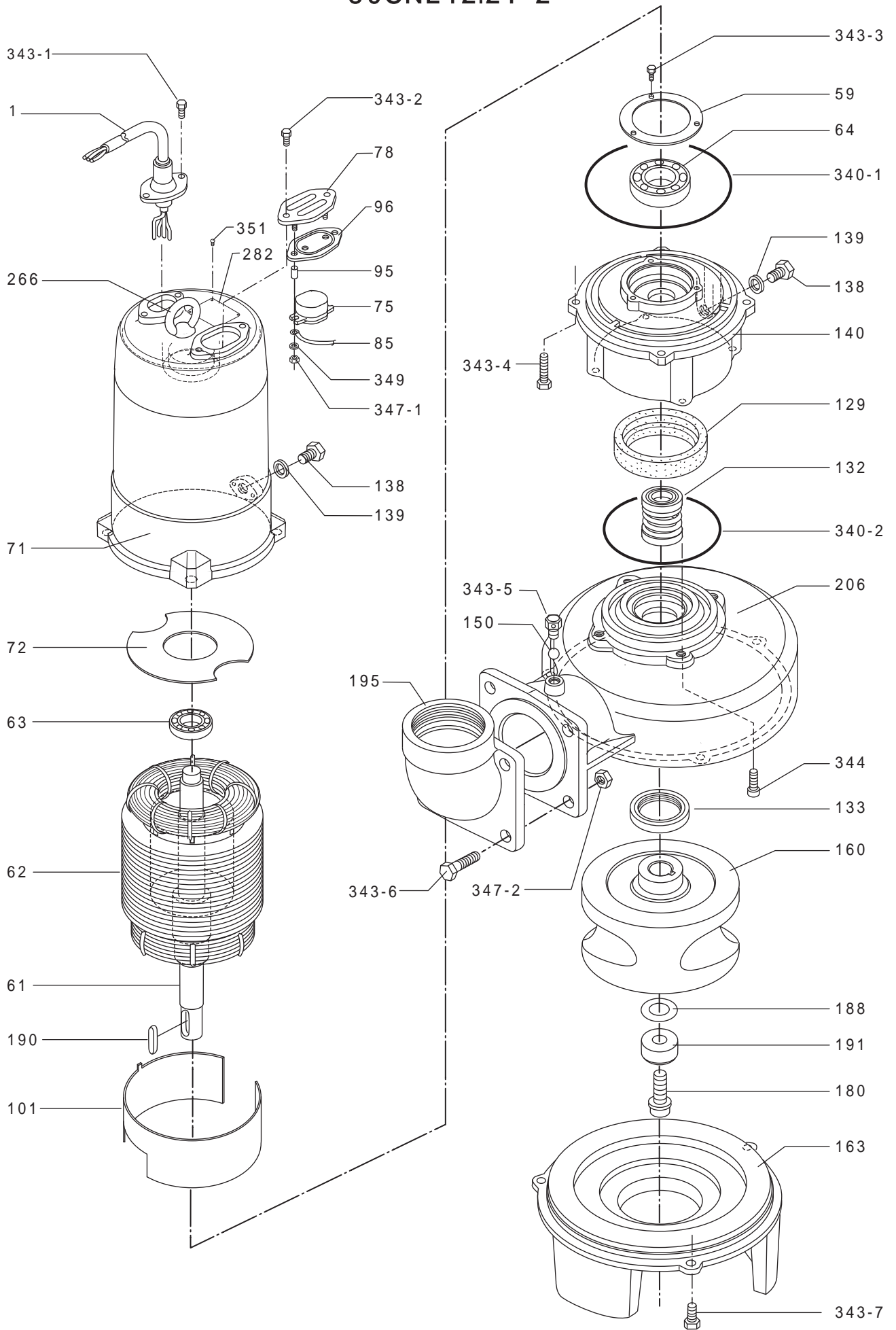
No.	Denomination	Material
1	Cable(Power)	VCT Polyvinylchloride sheathed cable
2	Cable Entry	FC200 (ASTM A48 Class 30) Gray Iron Casting
3	Eyebolt	SUS304 series (ASTM S304SERIES) Stainless Steel
6	Stator	_____
7	Rotor Assembly	Shaft=SUS420J2 Stainless Steel
8	Thermal Protector	_____
10	Stator Casing	FC200 (ASTM A48 Class 30) Gray Iron Casting
11	Ball Bearing (Upper)	_____
12	Duplex Ball Bearing (Lower)	_____
14	Oil Casing	FC200 (ASTM A48 Class 30) Gray Iron Casting
15	Impeller	FC250 (ASTM A48 Class 35) Gray Iron Casting
17	Pump Casing	FC250 (ASTM A48 Class 35) Gray Iron Casting
18	Mechanical Seal	Upper : SiC/SiC Lower : SiC/SiC
23	Oil	Turbine Oil #32
24	Air Valve	Polyethylene
32	Equalizer	N. B. R
163	Suction Cover	FC200 (ASTM A48 Class 30) Gray Iron Casting

			TITLE	DWG No.
			MATERIALS LIST	A401793

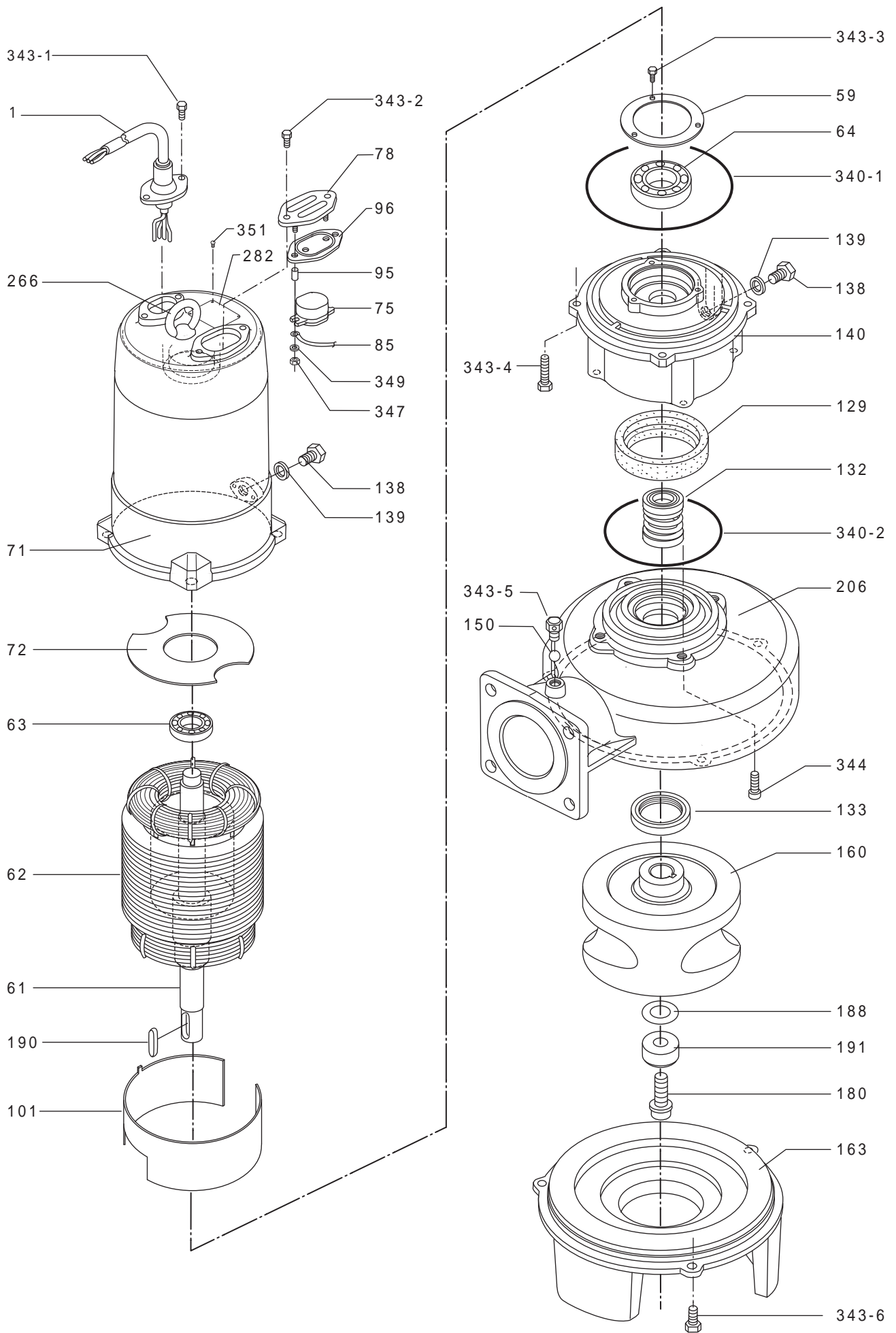
# 65CNL41.5T-2



# 80CNL42.2T-2



80CNL43.7T-2 / 100CNL45.5T-2 / 100CNL47.5T-2



## Parts List

No.	Part name	Part No.	Qty					Note	
			65CVC41.5S-2	65CNL41.5T-2	80CNL42.2T-2	80CNL43.7T-2	100CNL45.5T-2		100CNL47.5T-2
1	Power Cable	BK1519-A	1						
		B76666-B		1					
		B82413-E			1				
		B82414-E				1			
		B82415-E					1		
58	Motor Cover	B82416-E						1	
		C78039-D	1						
59	Bearing Holder	C44853-A		1					
		A81577-A	1	1					
		B78732-A			1				
		B78777-A				1			
61	Rotor Assy	B76642-A					1	1	
		C61475-A	1						
		C61463-A		1					
		C44349-A			1				
		C44350-A				1			
62	Stator Assy	D63383-A					1		
		D63383-C						1	
		C61475-B	1						
		C61463-B		1					
		C44349-0			1				
63	Upper Bearing	C61333-A				1			
		D77670-W					1		
		D77670-Z						1	
		S94159-C	1	1					
64	Lower Bearing	S94159-A			1	1			
		S94159-D					1	1	
		S63123-G	1	1					
		S63123-D			1				
68	Bearing Plate	S63123-H				1			
		S63123-F					1	1	
		C44854-D	1						
69	Bearing Washer	A81578-B	1	1					
		C76814-A	1	1					
71	Stator Casing	C83661-A			1				
		C83660-A				1			
		D77897-A					1		
		D77897-B						1	
75	Auto-Cut (Thermal Protector)	SY3387-K	1						
		S63403-H		1					
		AM3862-A			1				
		AM3863-B				1			
		H18347-C					1		
78	Auto-Cut Cover	H18347-D						1	
		B82711-A			1				
82	Capacitor	B82711-B				1	1	1	
		SY5978-A	1						
85	Ground Wire	AV0652-B	1						
		A78004-B	1	1					
		A83430-A			1				
		A83430-B				1			
95	Pipe Spacer	A83430-C					1		
		A83430-D						1	
		S62952-C			2				
		S62952-D				2	2	2	
96	Packing	B78728-A			1				
		B78728-B				1	1	1	
101	Stator Collar	AM2949-A			1				
		AM2949-B				1			
		H15715-A					1	1	
129	Equalizer	A83187-A			1	1	1	1	
132	Mechanical Seal	S64397-A	1	1	1				
		S64398-A				1			
		S64399-A					1	1	
133	Oil Seal	S62962-K	1	1					
		S62962-J			1	1			
		S62962-H					1	1	
138	Check Plug	111S1016	1	1					
		111S1625			2	2	2	2	
139	Gasket	A76838-T	1	1					
		AM7943-D			2	2	2	2	
140	Oil Casing	D63662-A	1	1					
		D63378-A			1				
		D63390-A				1			

## Parts List

No.	Part name	Part No.	Qty						Note
			65CVC41.5S-2	65CNL41.5T-2	80CNL42.2T-2	80CNL43.7T-2	100CNL45.5T-2	100CNL47.5T-2	
		D63382-A					1	1	
147	Mecanical Seal Bracket	C60936-A	1						
150	Ball	AP8781-A	1						
		A83188-A			1	1	1	1	