

**Contents**

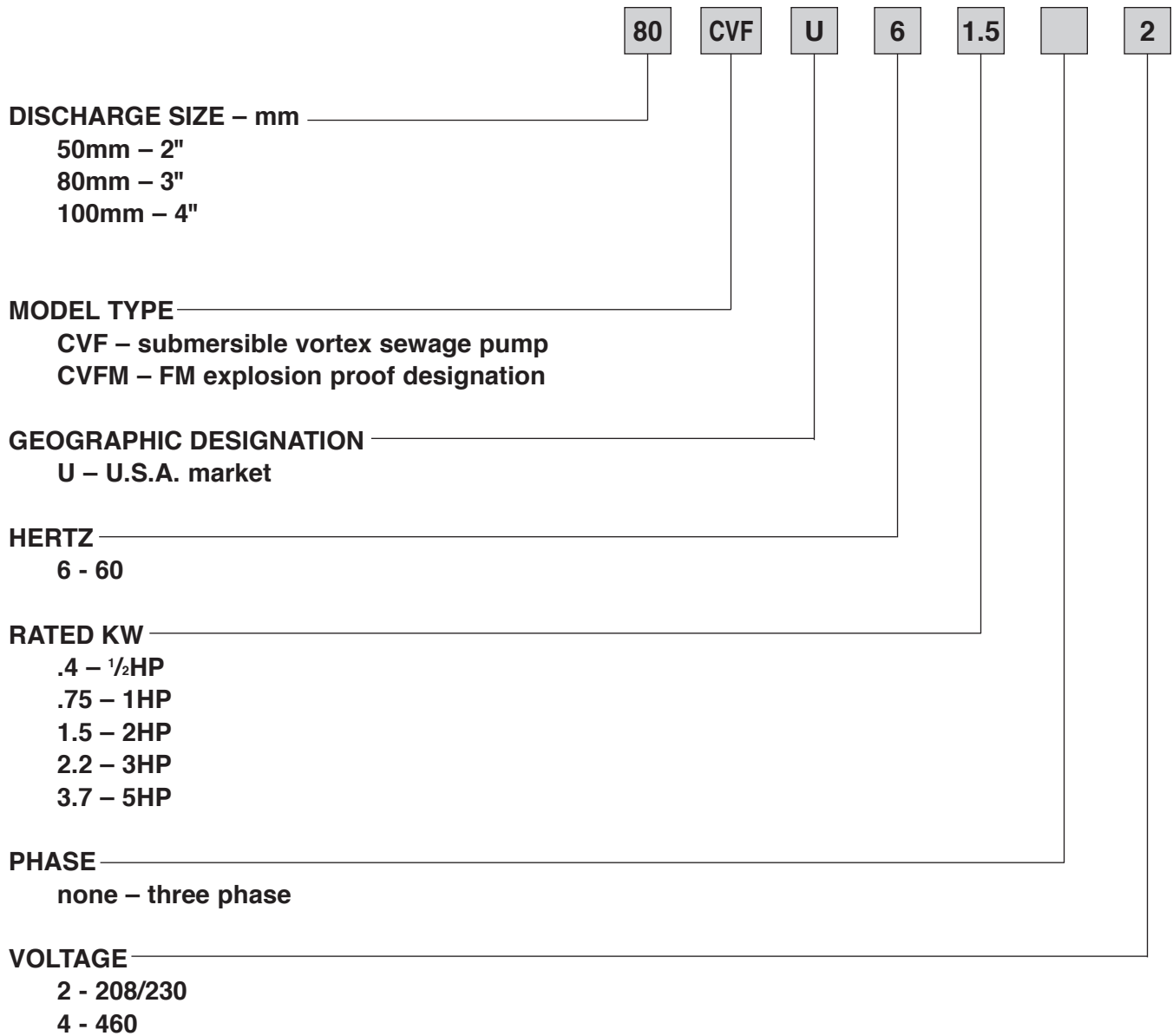
50CVFU61.5  
50CVFU62.2  
80CVFU61.5  
80CVBFU62.2  
80CVCFU62.2  
80CVBFU63.7  
80CVCFU63.7  
100CVFU63.7

<b>Section</b>	<b>Page</b>
Specifications	2002
Selection Chart	2003
Performance Curves	2007
Dimensions	2011
Sectional View	2018
QDC Information	2100
Motor Data	2200
motor electrical specifications	
cable data	
wiring diagrams	
motor electrical data	

Model CVFU

EBARA PRO Cast Vortex Sewage Pumps

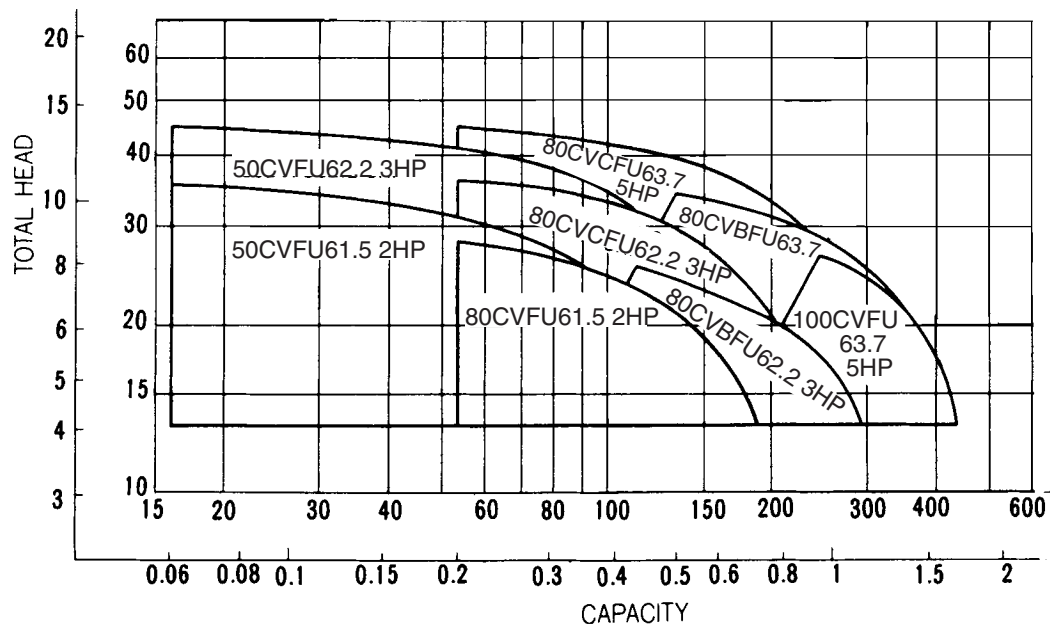
Model Designation

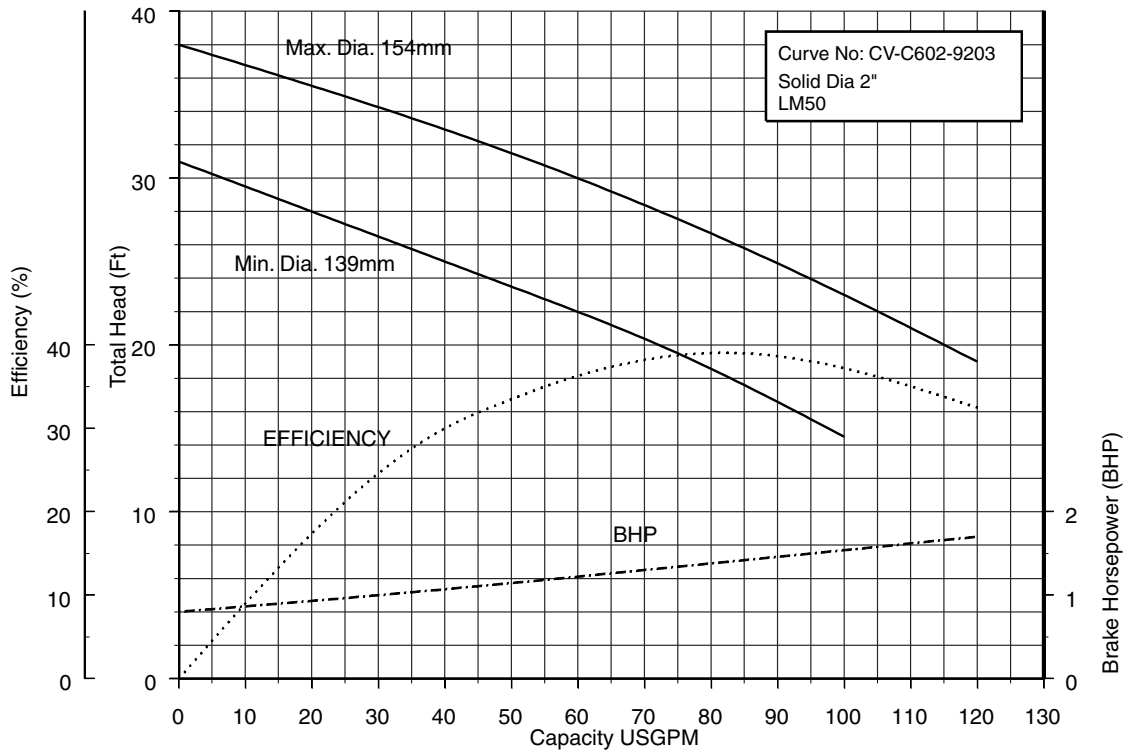
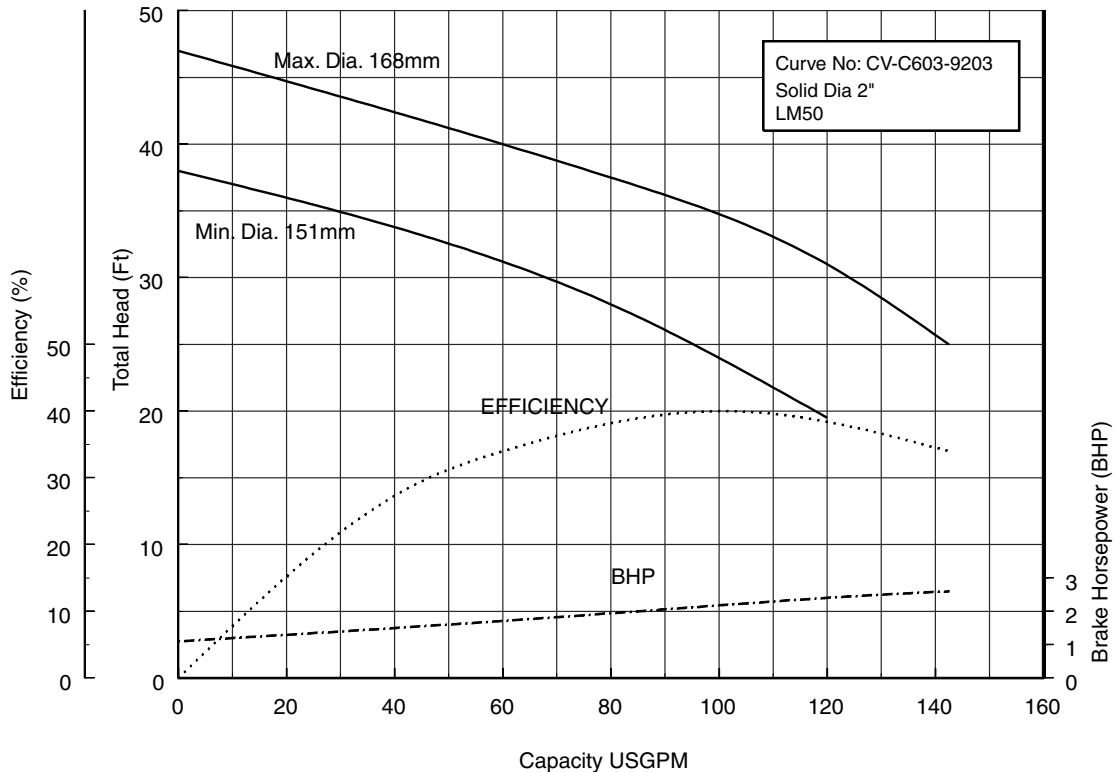


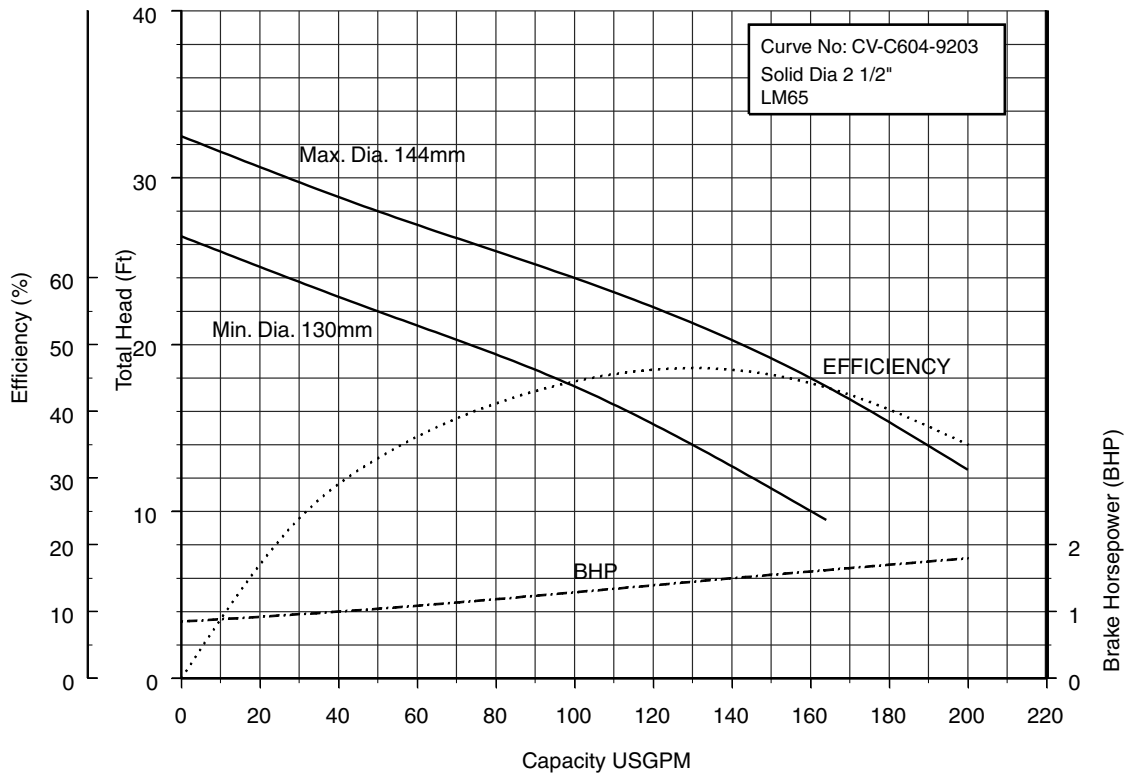
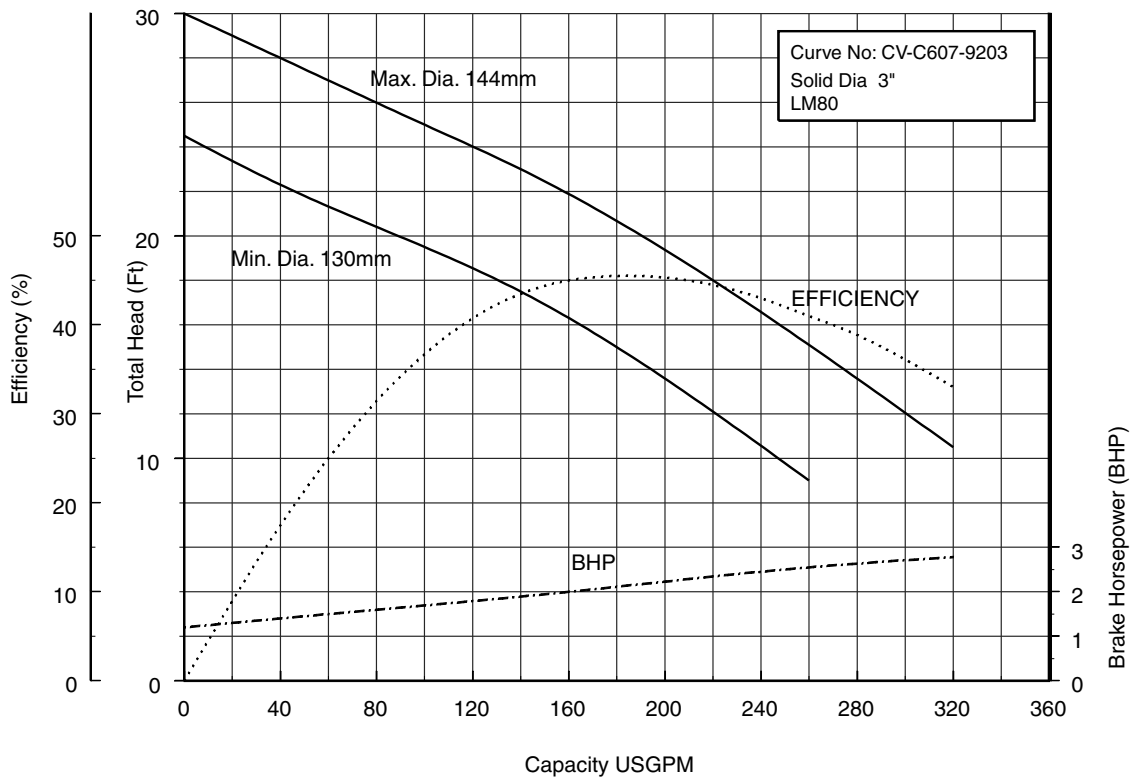
**Model CVFU**
**EBARA PRO Cast Vortex Sewage Pumps**
**Specifications**

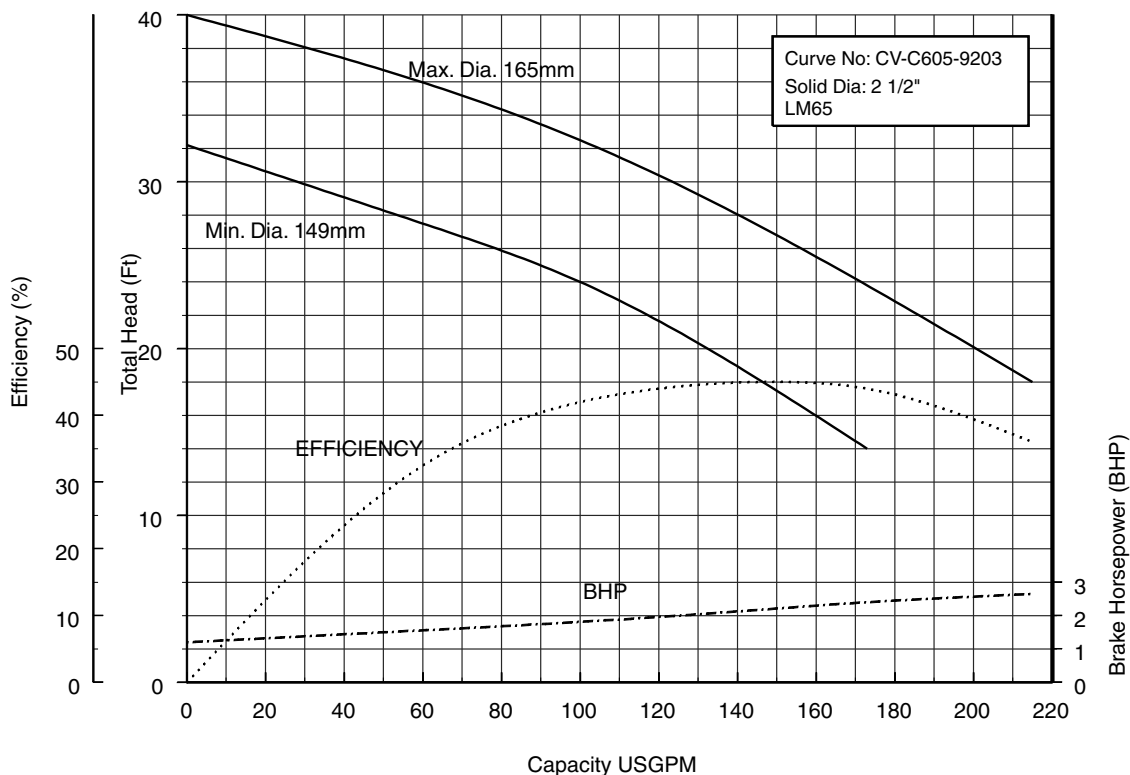
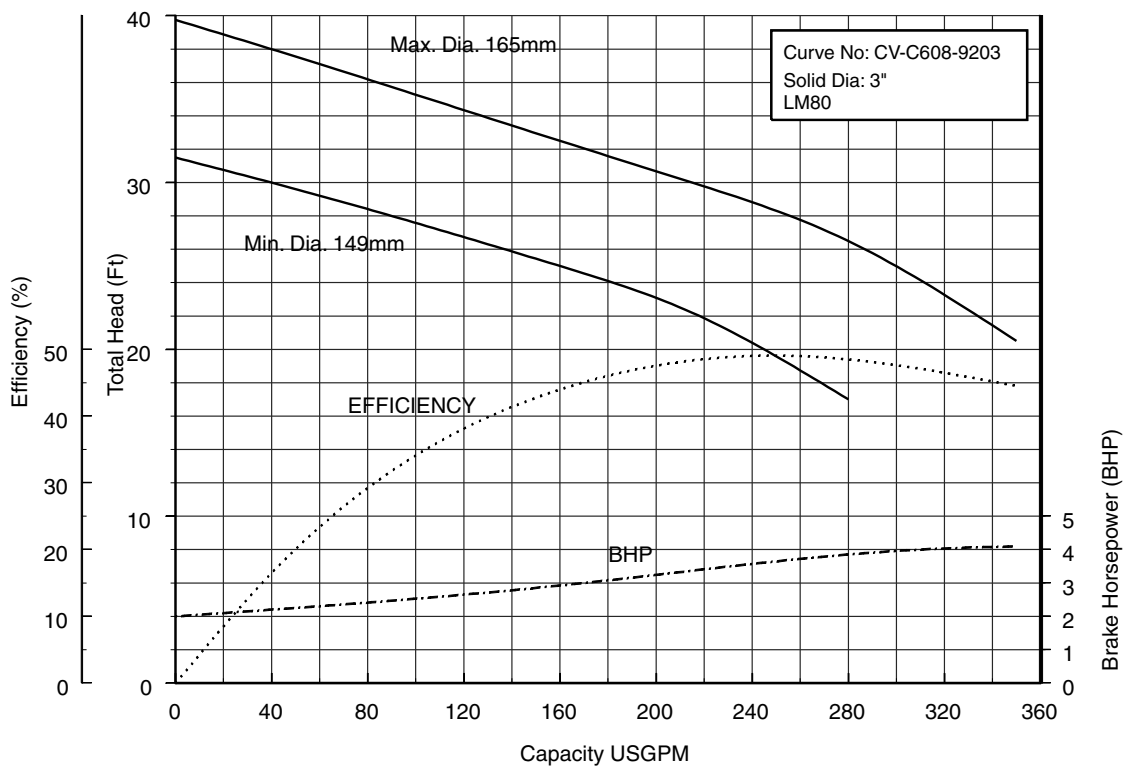
	Standard	Optional
Size	2, 3, 4	
Range of HP Range of Performance	2 to 5 HP Capacity 16 to 425 GPM Head 13 to 50 feet	
<b>Limitation</b> Maximum Water Temperature	104°F (40°C)	
<b>Speed</b>	1800 RPM	
<b>Materials</b> Casing Impeller Shaft Motor Frame Fastener	Cast Iron Cast Iron 403 Stainless Steel Cast Iron 304 Stainless Steel	
<b>Mechanical Seal</b> Material – Upper Side Material – Lower Side Impeller Type Bearing Motor Three Phase Motor Protection Accessories	Double Mechanical Seal Carbon/Ceramic Silicon Carbide/Silicon Carbide Semi-open Recessed Vortex Prelubricated Ball Bearing Insulation Class H 208/230V, 460V Built-in Thermal Detector – Klixons Built-in Leakage Detector Submersible cable 33 ft.	FM Explosion Proof, Class 1, Division 1, Group C, D  ____ ft. (customer specified) QDC System

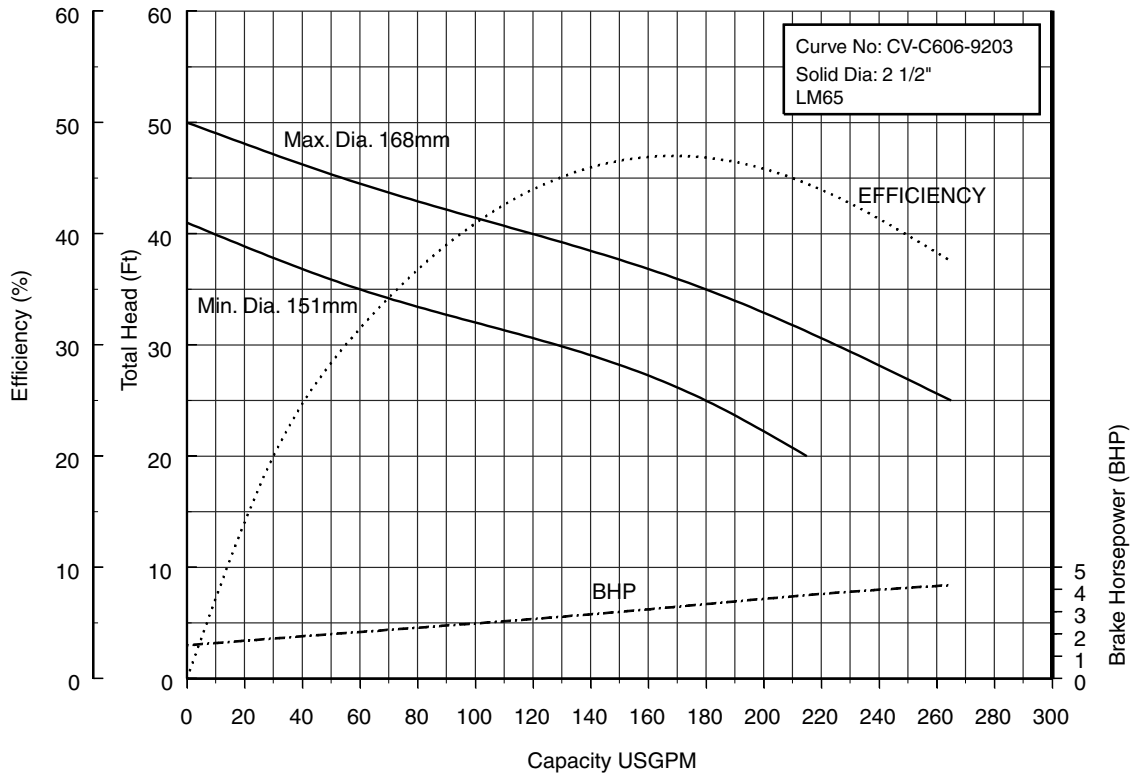
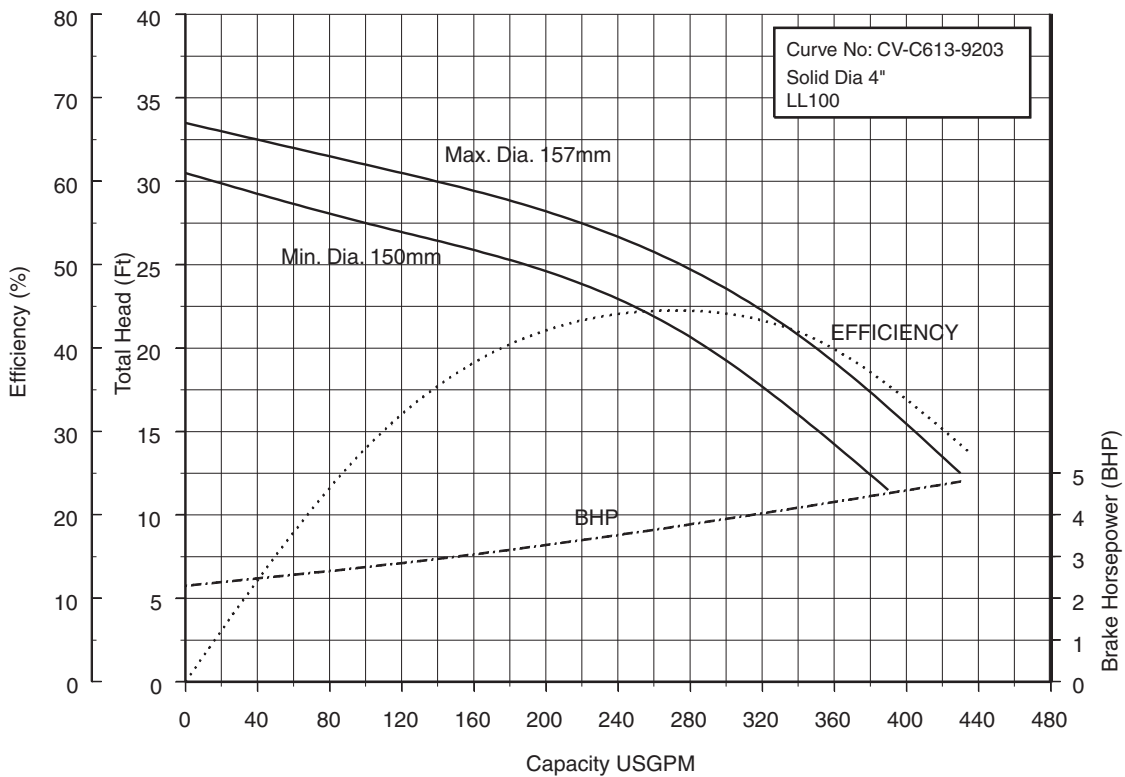
Three Phase



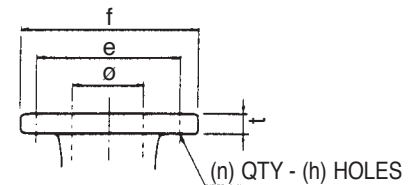
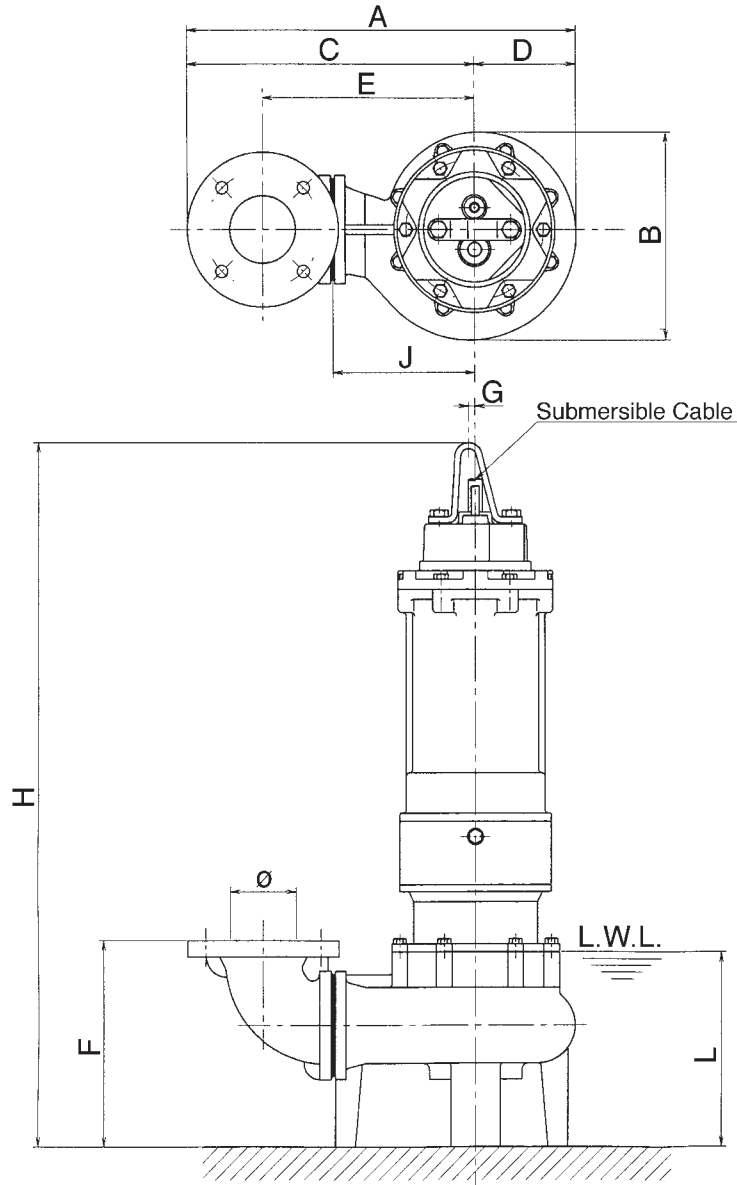
**50CVF61.5 (2HP) Synchronous Speed: 1800 RPM**
**2 inch Discharge**

**50CVF62.2 (3HP) Synchronous Speed: 1800 RPM**
**2 inch Discharge**


**80CVF61.5 (2HP) Synchronous Speed: 1800 RPM**
**2, 3 inch Discharge**

**80CVBF62.2 (3HP) Synchronous Speed: 1800 RPM**
**3, 4 inch Discharge**


**80CVCF62.2 (3HP) Synchronous Speed: 1800 RPM**
**2, 3 inch Discharge**

**80CVBF63.7 (5HP) Synchronous Speed: 1800 RPM**
**3, 4 inch Discharge**


**80CVCF63.7 (5HP) Synchronous Speed: 1800 RPM**
**2, 3 inch Discharge**

**100CVF63.7 (5HP) Synchronous Speed: 1800 RPM**
**3, 4 inch Discharge**





**Flange (ANSI 125 PSI F.F)**

inch					
Ø	e	f	t	n	h
2	4 <sup>3</sup> / <sub>4</sub>	6	5 <sup>5</sup> / <sub>8</sub>	4	3 <sup>3</sup> / <sub>4</sub>

mm					
Ø	e	f	t	n	h
50	121	152	16	4	19

**Dimensions: inch**

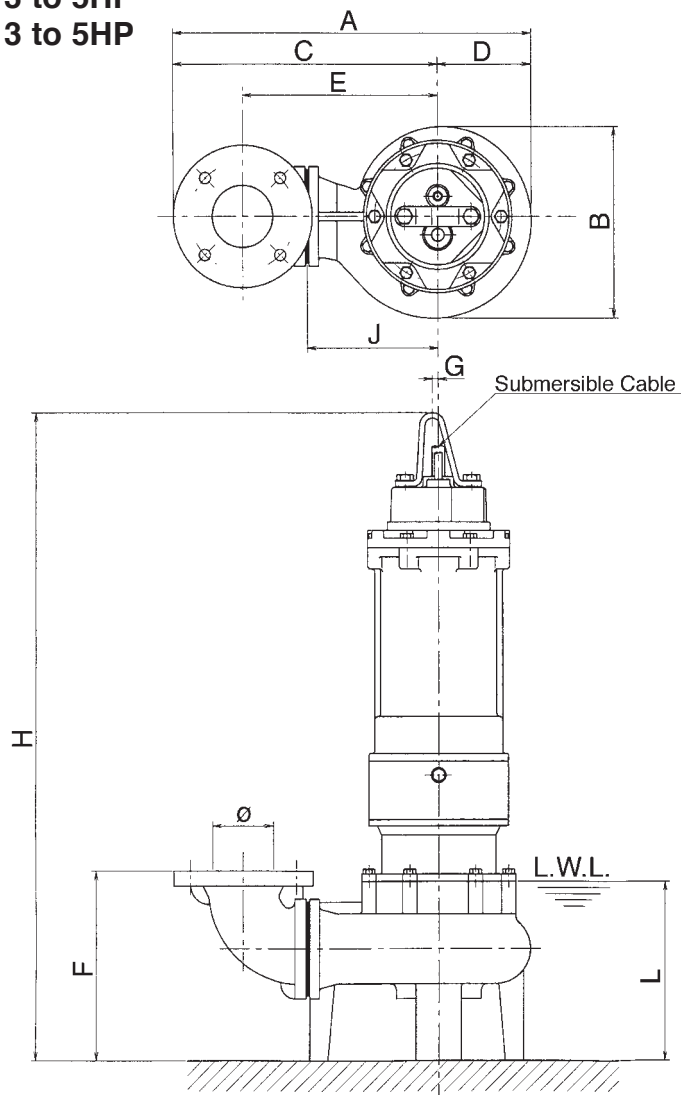
PHASE	SIZE Ø	MODEL	OUTPUT		PUMP & MOTOR								WEIGHT Lb		
			kW	HP	A	B	C	D	E	F	G	H		J	L
THREE	2	50CVFU61.5	1.5	2	15 <sup>3</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	28	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	121
		50CVFU62.2	2.2	3	15 <sup>3</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	29	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	150

**Dimensions: mm**

PHASE	SIZE Ø	MODEL	OUTPUT		PUMP & MOTOR								WEIGHT kg		
			kW	HP	A	B	C	D	E	F	G	H		J	L
THREE	50	50CVFU61.5	1.5	2	400	238	281	119	205	185	8	711	150	175	55
		50CVFU62.2	2.2	3	400	238	281	119	205	185	8	737	150	175	68

**Model CVFU**
**EBARA PRO Cast Vortex Sewage Pumps**
**Dimensions**

80CVFU 2HP  
 80CVBFU 3 to 5HP  
 80CVCFU 3 to 5HP


**Flange (ANSI 125 PSI F.F)**

inch					
ø	e	f	t	n	h
2	4 <sup>3</sup> / <sub>4</sub>	6	5 <sup>5</sup> / <sub>8</sub>	4	3 <sup>3</sup> / <sub>4</sub>
3	6	7 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	4	3 <sup>3</sup> / <sub>4</sub>

mm					
ø	e	f	t	n	h
50	121	152	16	4	19
80	152	191	19	4	19

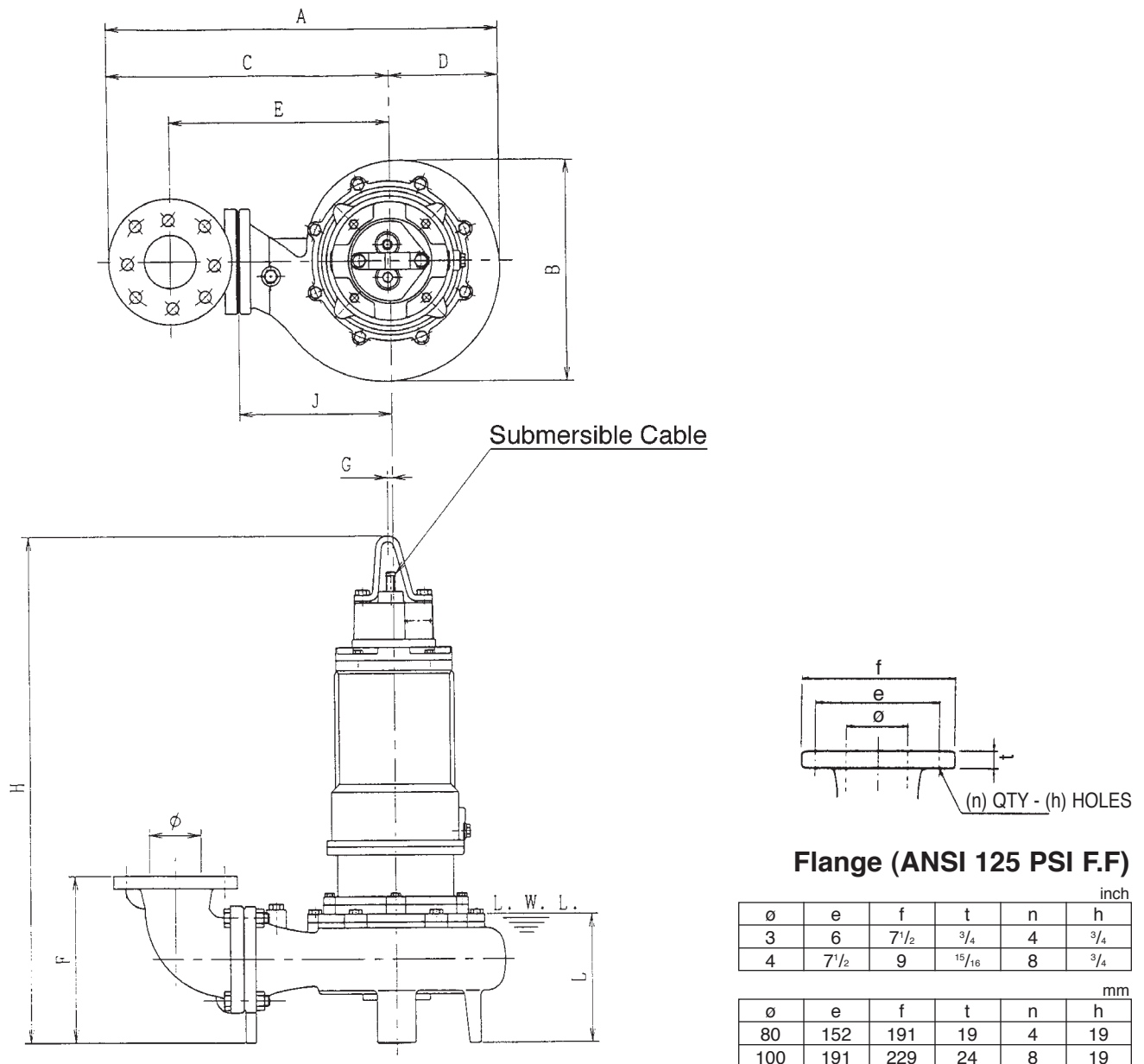
**Dimensions: inch**

PHASE	SIZE ø	MODEL	OUTPUT		PUMP & MOTOR										WEIGHT Lb
			kW	HP	A	B	C	D	E	F	G	H	J	L	
THREE	2/3	80CVFU61.5	1.5	2	17 <sup>11</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	8 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	29 <sup>7</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	130
		80CVCFU62.2	2.2	3	17 <sup>11</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	8 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	30 <sup>7</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	159
		80CVCFU63.7	3.7	5	17 <sup>11</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	8 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	32	6 <sup>5</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	172
	3/4	80CVBFU62.2	2.2	3	18 <sup>9</sup> / <sub>16</sub>	9 <sup>15</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>	4 <sup>15</sup> / <sub>16</sub>	9 <sup>13</sup> / <sub>16</sub>	10	5 <sup>5</sup> / <sub>16</sub>	32 <sup>5</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	176
80CVBFU63.7		3.7	5	18 <sup>9</sup> / <sub>16</sub>	9 <sup>15</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>	4 <sup>15</sup> / <sub>16</sub>	9 <sup>13</sup> / <sub>16</sub>	10	5 <sup>5</sup> / <sub>16</sub>	33 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	176	

**Dimensions: mm**

PHASE	SIZE ø	MODEL	OUTPUT		PUMP & MOTOR										WEIGHT kg
			kW	HP	A	B	C	D	E	F	G	H	J	L	
THREE	50/80	80CVFU61.5	1.5	2	450	238	331	119	235	224	8	747	160	205	59
		80CVCFU62.2	2.2	3	450	238	331	119	235	224	8	773	160	210	72
		80CVCFU63.7	3.7	5	450	238	331	119	235	224	8	813	160	210	78
	80/100	80CVBFU62.2	2.2	3	471	252	346	125	250	254	8	820	175	260	80
80CVBFU63.7		3.7	5	471	252	346	125	250	254	8	860	175	260	80	

**\*Note:** All dimensions are based on 3" discharge.


**Flange (ANSI 125 PSI F.F)**

inch					
ø	e	f	t	n	h
3	6	7 <sup>1</sup> / <sub>2</sub>	<sup>3</sup> / <sub>4</sub>	4	<sup>3</sup> / <sub>4</sub>
4	7 <sup>1</sup> / <sub>2</sub>	9	<sup>15</sup> / <sub>16</sub>	8	<sup>3</sup> / <sub>4</sub>

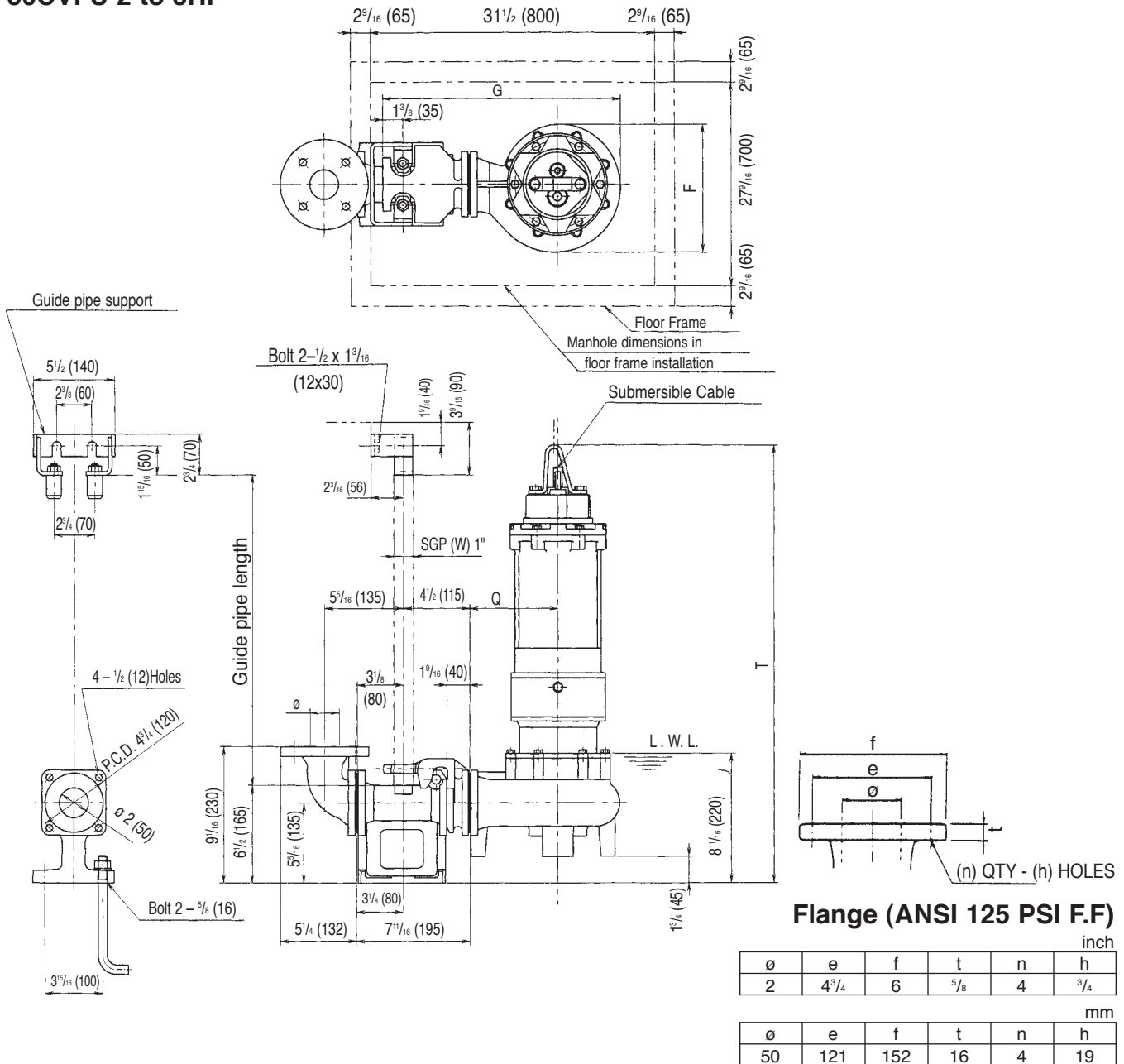
mm					
ø	e	f	t	n	h
80	152	191	19	4	19
100	191	229	24	8	19

**Dimensions: inch**

PHASE	SIZE ø	MODEL	OUTPUT		PUMP & MOTOR										WEIGHT Lb
			kW	HP	A	B	C	D	E	F	G	H	J	L	
THREE	3/4	100CVFU63.7	3.7	5	23 <sup>3</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>8</sub>	12	<sup>5</sup> / <sub>16</sub>	36 <sup>1</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	209

**Dimensions: mm**

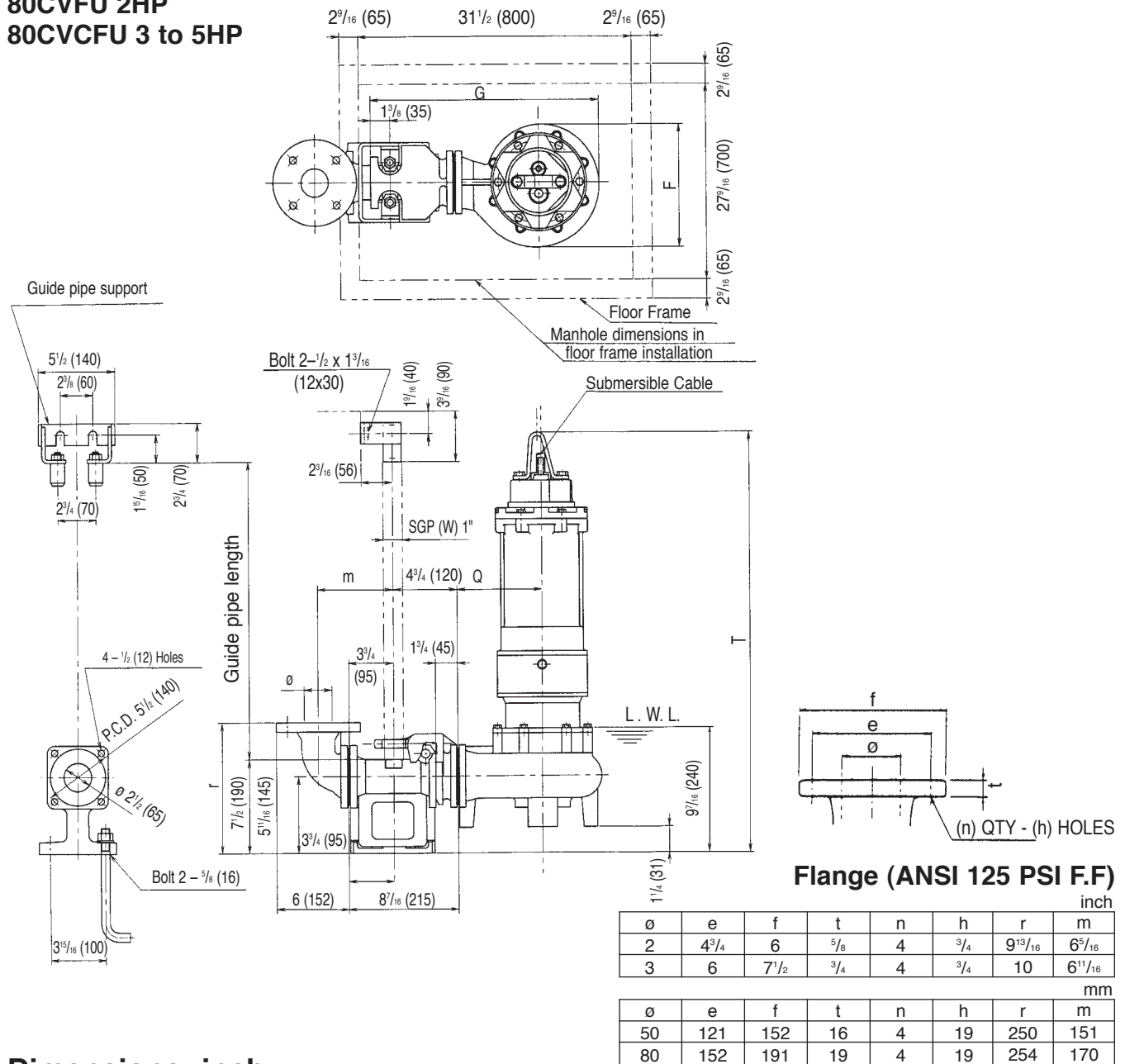
PHASE	SIZE ø	MODEL	OUTPUT		PUMP & MOTOR										WEIGHT kg
			kW	HP	A	B	C	D	E	F	G	H	J	L	
THREE	80/100	100CVFU63.7	3.7	5	589	308	435	154	320	305	8	916	215	315	95

**Model CVFU**
**EBARA PRO Cast Vortex Sewage Pumps**
**Dimensions**
**Model CVFU with Quick Discharge Connector  
50CVFU 2 to 3HP**

**Dimensions: inch**

PHASE	SIZE ø	MODEL	OUTPUT		Q.D.C. MODEL	PUMP & MOTOR				WEIGHT Lb	
			kW	HP		F	G	Q	T	PUMP	Q.D.C.
THREE	2	50CVFU61.5	1.5	2	LM50	9 <sup>9</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>8</sub>	29 <sup>3</sup> / <sub>4</sub>	121	24
		50CVFU62.2	2.2	3	LM50	9 <sup>9</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	30 <sup>13</sup> / <sub>16</sub>	150	24

**Dimensions: mm**

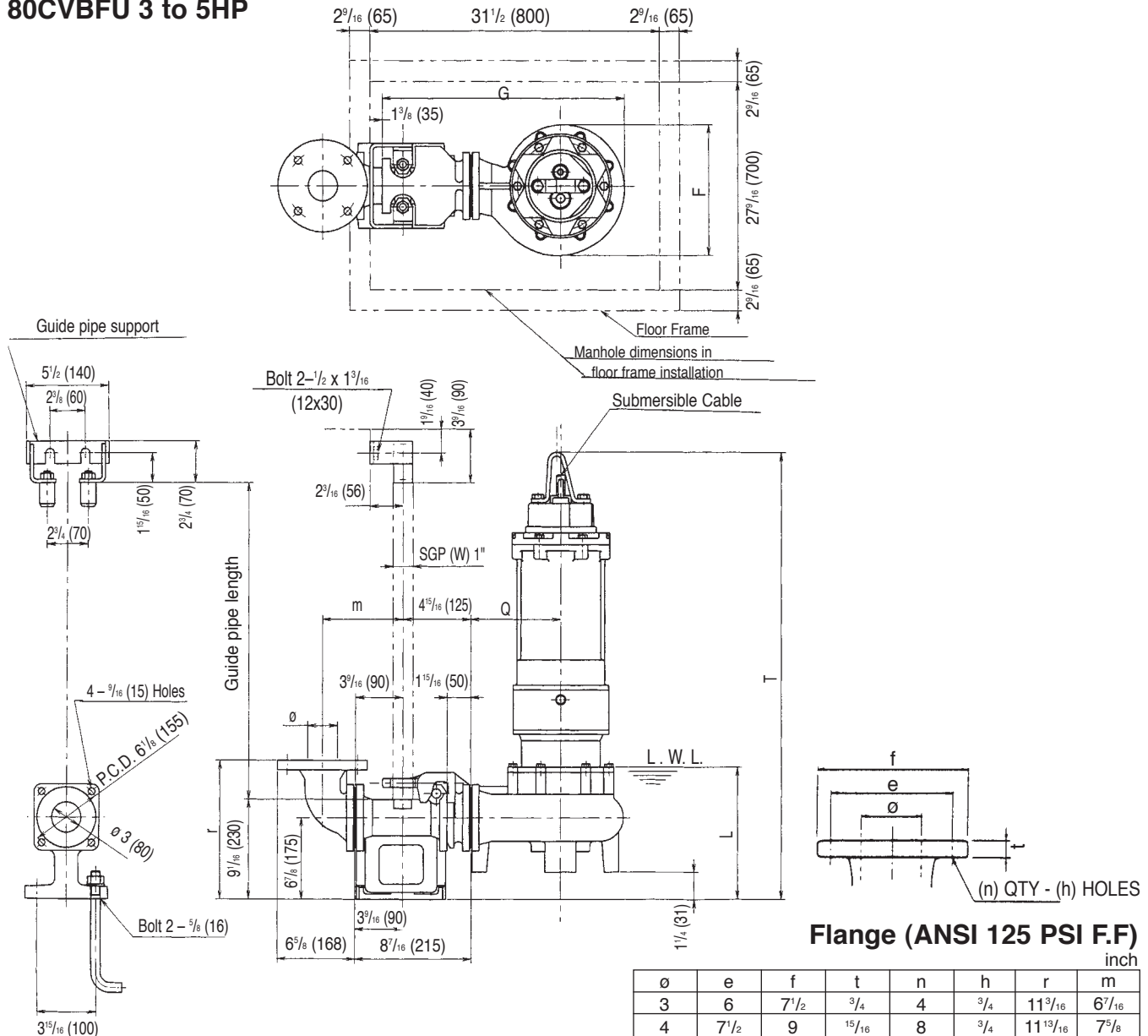
PHASE	SIZE ø	MODEL	OUTPUT		Q.D.C. MODEL	PUMP & MOTOR				WEIGHT kg	
			kW	HP		F	G	Q	T	PUMP	Q.D.C.
THREE	50	50CVFU61.5	1.5	2	LM50	238	413	150	756	55	11
		50CVFU62.2	2.2	3	LM50	238	384	150	782	68	11

**Model CVFU**
**EBARA PRO Cast Vortex Sewage Pumps**
**Dimensions**
**Model CVFU with Quick Discharge Connector**
**80CVFU 2HP**
**80CVCFU 3 to 5HP**

**Dimensions: inch**

PHASE	SIZE ø	MODEL	OUTPUT		Q.D.C. MODEL	PUMP & MOTOR				WEIGHT Lb	
			kW	HP		F	G	Q	T	PUMP	Q.D.C.
THREE	2/3	80CVFU61.5	1.5	2	LM65	9 <sup>3</sup> / <sub>8</sub>	16 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>8</sub>	130	31
		80CVCFU62.2	2.2	3	LM65	9 <sup>3</sup> / <sub>8</sub>	16 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>16</sub>	31 <sup>11</sup> / <sub>16</sub>	159	31
		80CVCFU63.7	3.7	5	LM65	9 <sup>3</sup> / <sub>8</sub>	19	6 <sup>5</sup> / <sub>16</sub>	33 <sup>1</sup> / <sub>4</sub>	172	31

**Dimensions: mm**

PHASE	SIZE ø	MODEL	OUTPUT		Q.D.C. MODEL	PUMP & MOTOR				WEIGHT kg	
			kW	HP		F	G	Q	T	PUMP	Q.D.C.
THREE	50/80	80CVFU61.5	1.5	2	LM65	238	428	160	778	59	14
		80CVCFU62.2	2.2	3	LM65	238	428	160	805	72	14
		80CVCFU63.7	3.7	5	LM65	238	482	160	845	78	14

**Model CVFU**
**EBARA PRO Cast Vortex Sewage Pumps**
**Dimensions**
**Model CVFU with Quick Discharge Connector  
80CVBFU 3 to 5HP**

**Flange (ANSI 125 PSI F.F)**

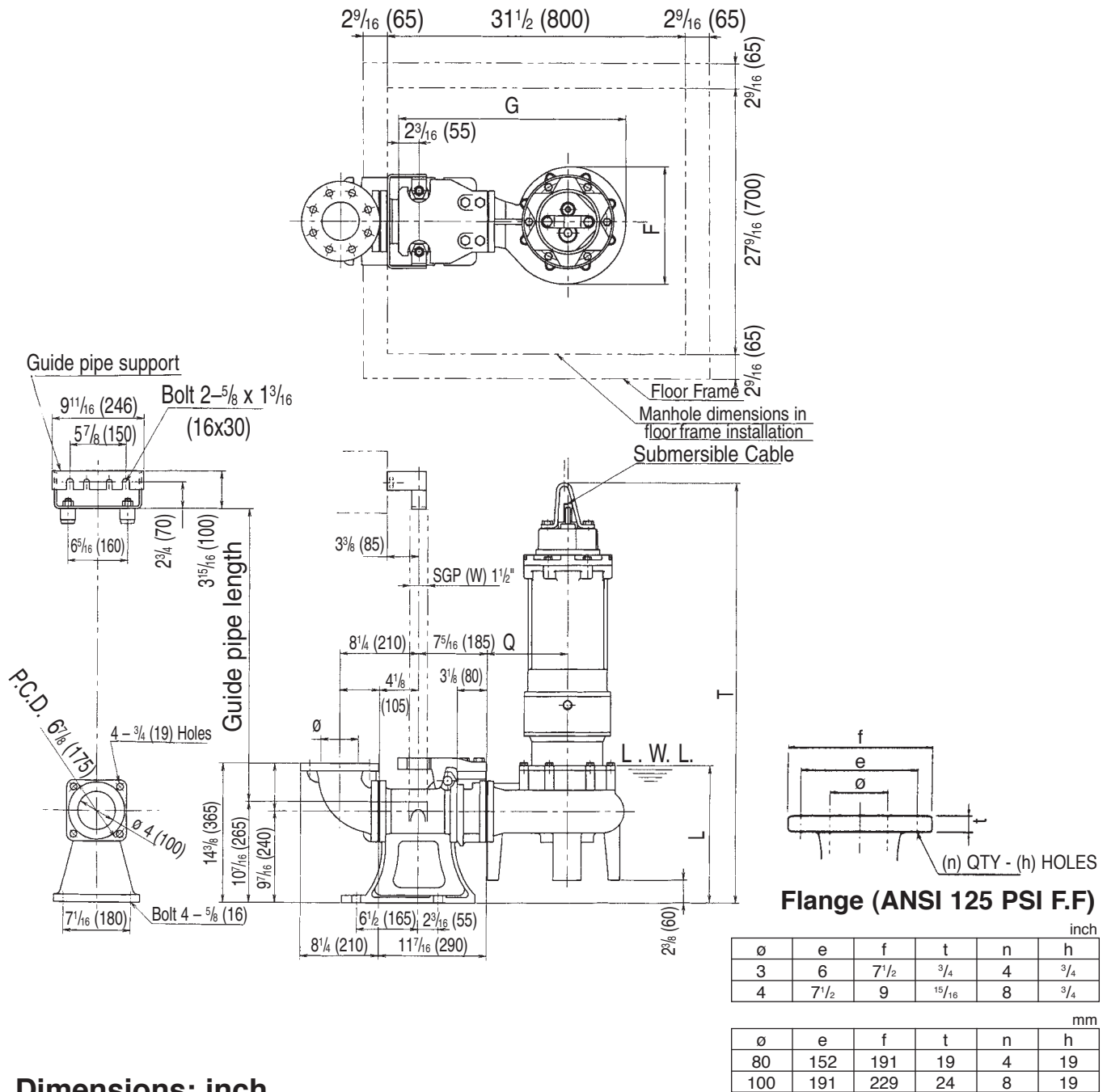
inch							
ø	e	f	t	n	h	r	m
3	6	7 1/2	3/4	4	3/4	11 3/16	6 7/16
4	7 1/2	9	15/16	8	3/4	11 13/16	7 5/8
mm							
ø	e	f	t	n	h	r	m
80	152	191	19	4	19	284	164
100	191	229	24	8	19	300	194

**Dimensions: inch**

PHASE	SIZE ø	MODEL	OUTPUT		Q.D.C. MODEL	PUMP & MOTOR					WEIGHT Lb	
			kW	HP		F	G	L	Q	T	PUMP	Q.D.C.
THREE	3/4	80CVBFU62.2	2.2	3	LM80	9 15/16	18 1/8	11 7/16	6 7/8	33 1/2	176	37
		80CVBFU63.7	3.7	5	LM80	9 15/16	18 1/8	11 7/16	6 7/8	35 1/16	176	37

**Dimensions: mm**

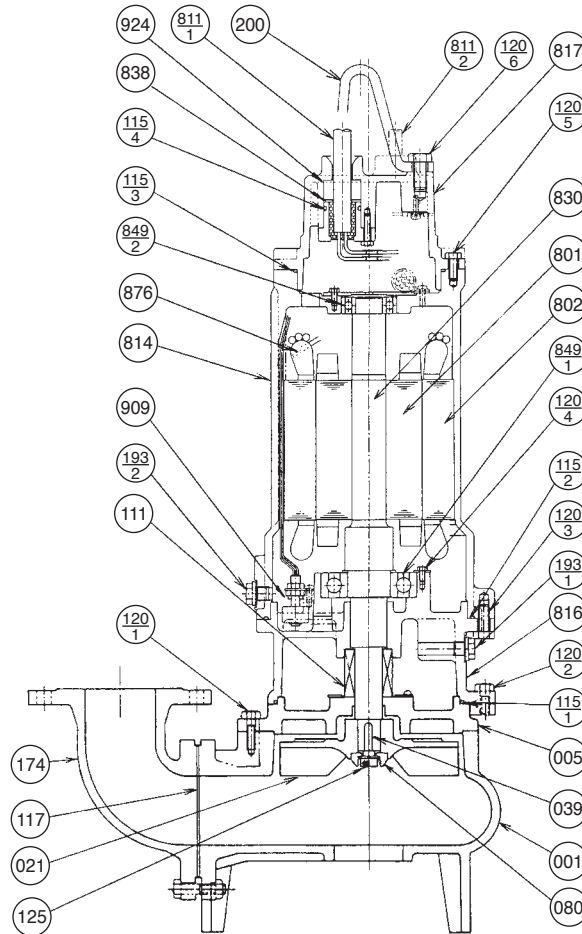
PHASE	SIZE ø	MODEL	OUTPUT		Q.D.C. MODEL	PUMP & MOTOR					WEIGHT kg	
			kW	HP		F	G	L	Q	T	PUMP	Q.D.C.
THREE	80/100	80CVBFU62.2	2.2	3	LM80	252	460	290	175	851	80	17
		80CVBFU63.7	3.7	5	LM80	252	460	290	175	891	80	17

**Model CVFU**
**EBARA PRO Cast Vortex Sewage Pumps**
**Dimensions**
**Model DVFU with Quick Discharge Connector  
100CVFU 5HP**

**Dimensions: inch**

PHASE	SIZE $\phi$	MODEL	OUTPUT		Q.D.C. MODEL	PUMP & MOTOR					WEIGHT Lb	
			KW	HP		F	G	L	Q	T	PUMP	Q.D.C.
THREE	3/4	100CVFU63.7	3.7	5	LL100	$12\frac{1}{8}$	24	$14\frac{3}{4}$	$8\frac{7}{16}$	$38\frac{7}{16}$	209	101

**Dimensions: mm**

PHASE	SIZE $\phi$	MODEL	OUTPUT		Q.D.C. MODEL	PUMP & MOTOR					WEIGHT kg	
			KW	HP		F	G	L	Q	T	PUMP	Q.D.C.
THREE	80/100	100CVFU63.7	3.7	5	LL100	308	609	375	215	976	95	46

**Model CVFU**
**EBARA PRO Cast Vortex Sewage Pumps**
**Sectional View**
**2 to 5HP**


PART NO.	PART NAME	MATERIAL	ASTM, AISI CODE	NO. FOR 1 UNIT
001	CASING	CAST IRON	A48 Class 30	1
005	INTERMEDIATE CASING	CAST IRON	A48 Class 30	1
†021	IMPELLER	CAST IRON	A48 Class 30	1
039	KEY	420 STAINLESS	AISI420	1
080	BUSHING	STEEL	A283 Grade D	1
†111	MECHANICAL SEAL	—		1 SET
†115-1	O-RING	RUBBER (NBR)		1
†115-2	O-RING	RUBBER (NBR)		1
†115-3	O-RING	RUBBER (NBR)		1
†115-4	O-RING	RUBBER (NBR)		2
†117	GASKET			1
120-1	BOLT	304 STAINLESS	AISI304	4
120-2	BOLT	304 STAINLESS	AISI304	4
120-3	BOLT	304 STAINLESS	AISI304	4
120-4	BOLT	304 STAINLESS	AISI304	3
120-5	BOLT	304 STAINLESS	AISI304	4
120-6	BOLT	304 STAINLESS	AISI304	2
125	BOLT	304 STAINLESS	AISI304	1

PART NO.	PART NAME	MATERIAL	ASTM, AISI CODE	NO. FOR 1 UNIT
174	DISCHARGE ELBOW	CAST IRON	A48 Class 30	1
193-1	PLUG	304 STAINLESS	AISI304	1
193-2	PLUG	304 STAINLESS	AISI304	1
200	LIFTING HANGER	STEEL	A283 Grade D	1
801	ROTOR	—		1
802	STATOR	—		1
811-1	POWER CABLE	—		1
811-2	CONTROL CABLE	—		1
814	MOTOR COVER	CAST IRON	A48 Class 30	1
816	BRACKET	CAST IRON	A48 Class 30	1
817	BRACKET	CAST IRON	A48 Class 30	1
830	SHAFT	403 STAINLESS	AISI403	1
838	WASHER	304 STAINLESS	AISI304	2
†849-1	BALL BEARING	—		1
†849-2	BALL BEARING	—		1
876	MOTOR PROTECTOR	—		3
909	LEAKAGE DETECTOR	—		1
924	PACKING	RUBBER (NBR)		2

Motors are purchased as a complete unit

†: Recommended spare parts