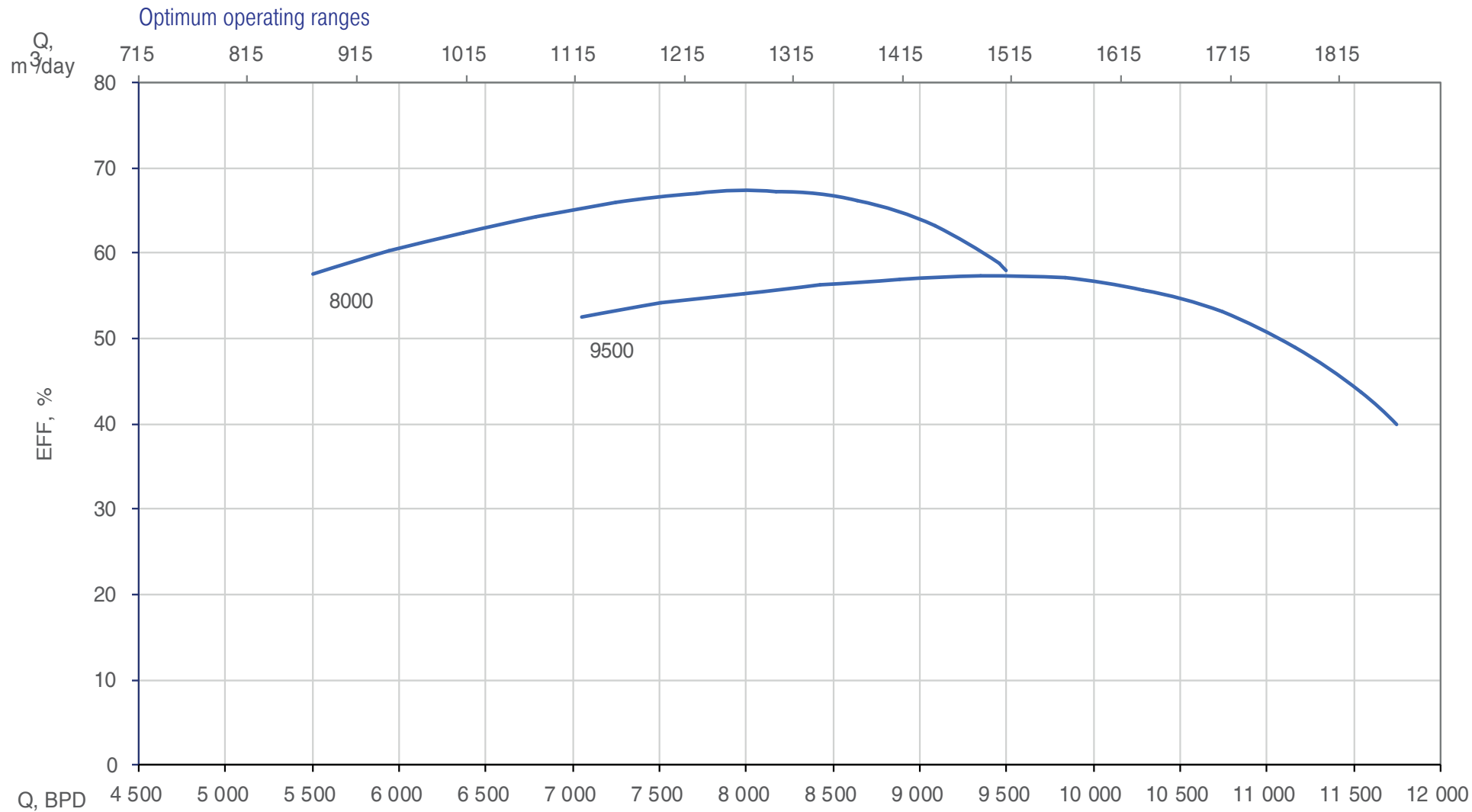


449 Series Pump Performance Curves, 1 stage, 3500RPM

Pumps 449 Series



Pumps 449 Series

Optimum operating ranges

Model	Hz	Construction			Stage		Optimum Operating Range BPD / m ³ /Day		BHP/Stage	Housing Pressure Limit PSI	
		FLT	PKT	CMP	Radial Flow	Mixed Flow				Std	Hi-Prs
449-8000	60	X			X	6000	10000	1,51	6000	6000	
449-8000	50	X			X	4995	8325	0,83	6000	6000	
449-9500	60	X			X	7050	11750	1,96	6000	6000	
449-9500	50	X			X	5925	9875	1,14	6000	6000	



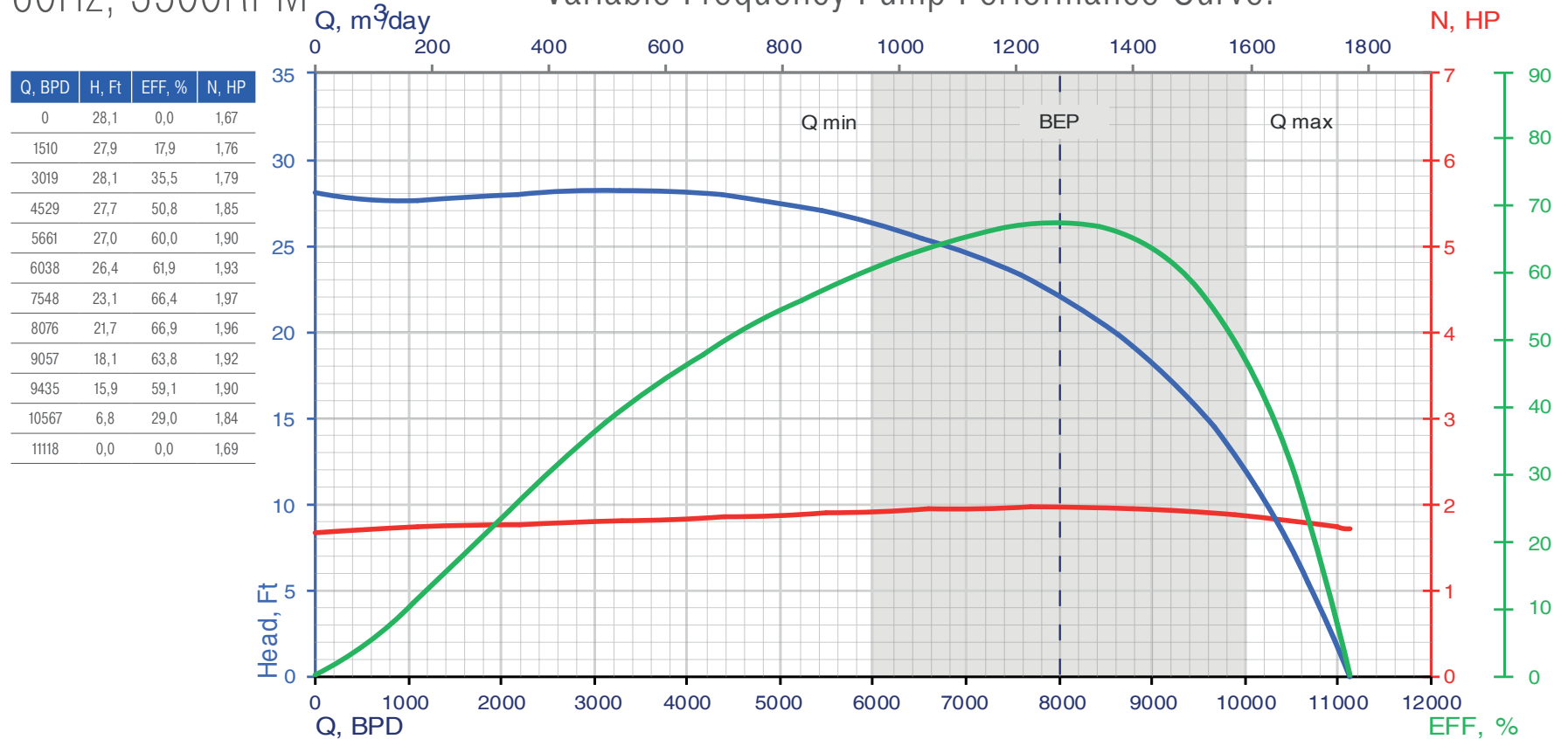
Casting mold

449-8000

Pumps 449 Series

60Hz, 3500RPM

Variable Frequency Pump Performance Curve.



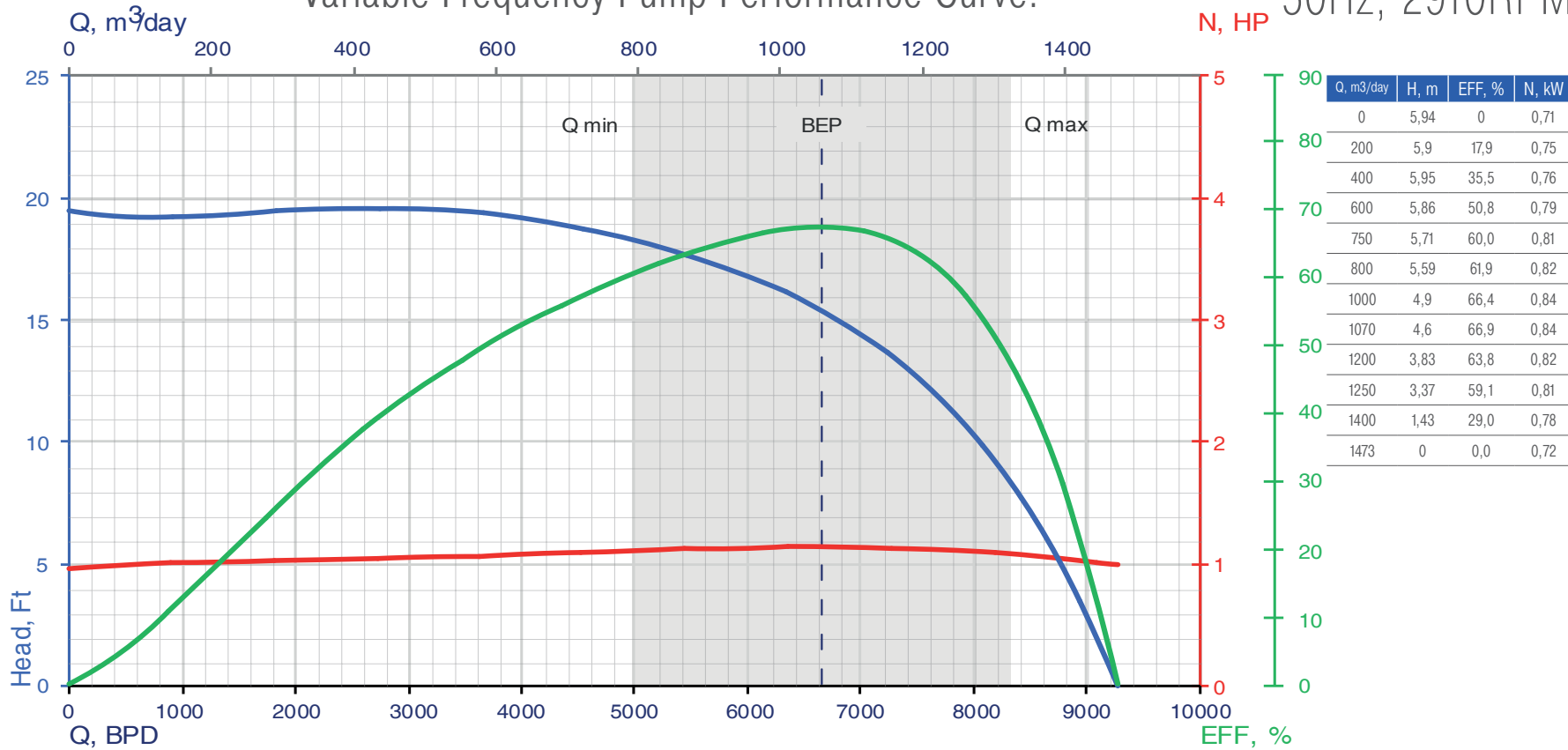
ENGINEERING DATA			
Optimum Operating Range	60 Hz	6000-10000 BPD	Shaft limit
Housing Diameter		4,49 In / 114 mm	Standart @ 60 Hz 1023 HP
Minimum Casing Size		5,67 In / 144,1 mm	High Strength @ 60 Hz 1408 HP
Shaft Diameter		1,18 In / 30 mm	Max Staging: Shaft
Area		1,02 Sq In / 658,34 mm ²	Standart @ 60 Hz 521 Stages
Stage Type		Radial Flow	High Strength @ 60 Hz 718 Stages
Rotational Direction		CW	Max Staging: Thrust Bearing- Floater Pump
Fluid Specific Gravity		1.0	Std (230°F BHT Max) @ 60 Hz 164 Stages
Housing Pressure Limit		6000 PSI	Hi-Ld (250°F BHT Max) @ 60 Hz 207 Stages

Pumps 449 Series

449-8000

Variable Frequency Pump Performance Curve.

50Hz, 2910RPM

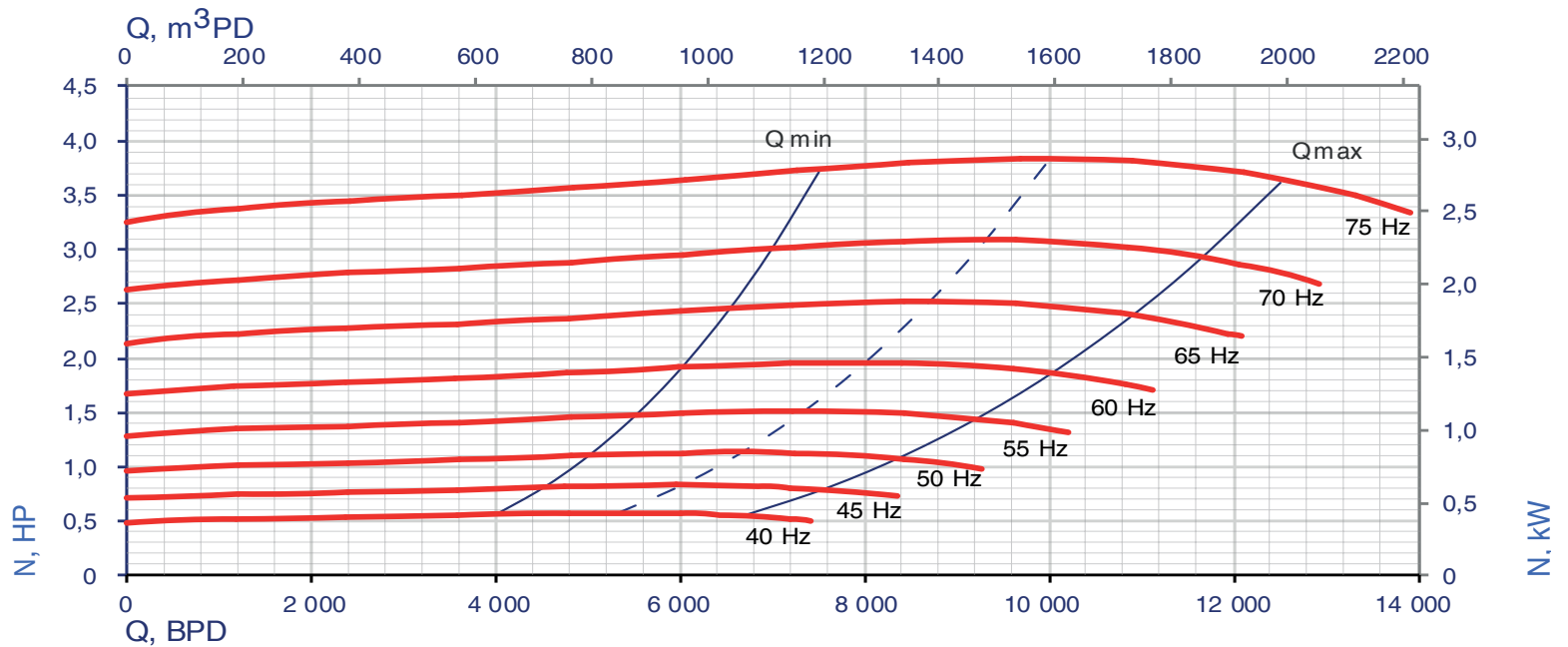
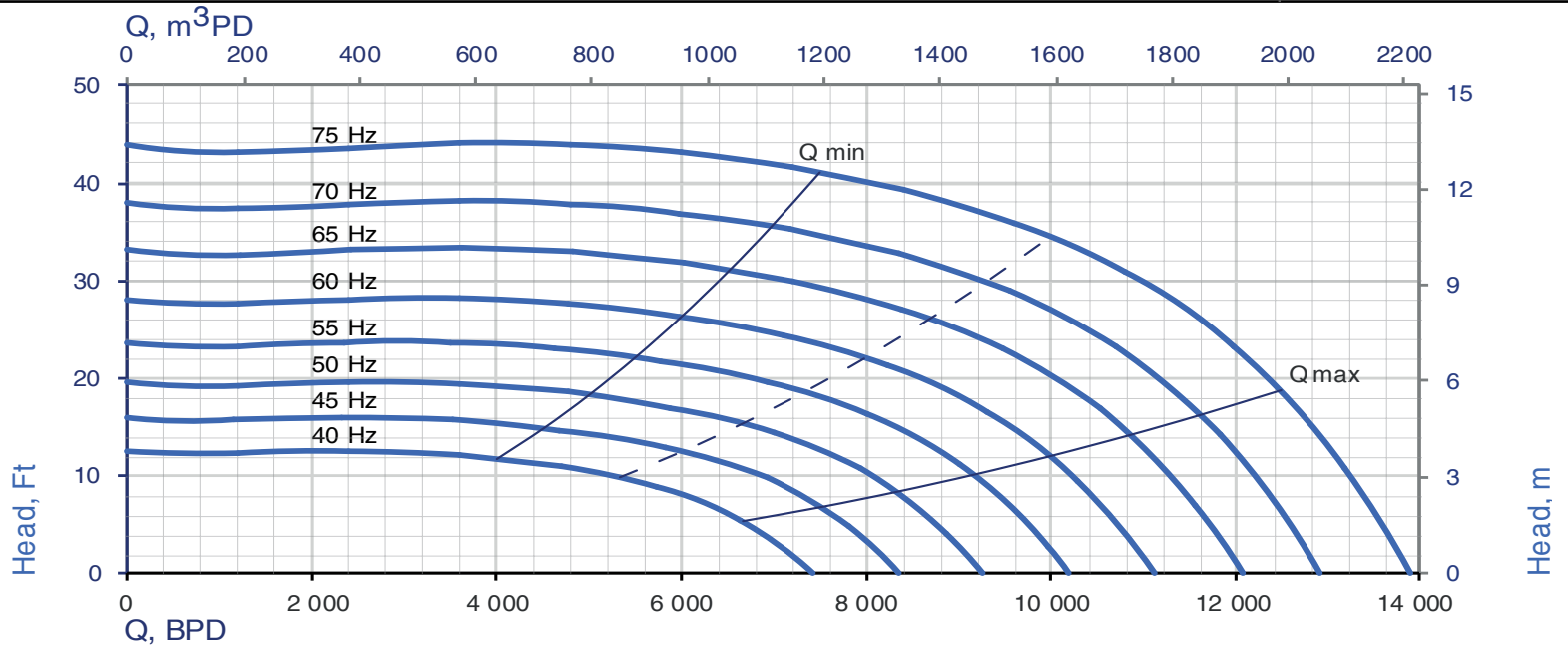


Q, m³/day	H, m	EFF, %	N, kW
0	5,94	0	0,71
200	5,9	17,9	0,75
400	5,95	35,5	0,76
600	5,86	50,8	0,79
750	5,71	60,0	0,81
800	5,59	61,9	0,82
1000	4,9	66,4	0,84
1070	4,6	66,9	0,84
1200	3,83	63,8	0,82
1250	3,37	59,1	0,81
1400	1,43	29,0	0,78
1473	0	0,0	0,72

ENGINEERING DATA			
Optimum Operating Range	50 Hz	4995-8325 BPD	Shaft limit
Housing Diameter	4,49 In / 114 mm		Standart @ 50 Hz 852 HP
Minimum Casing Size	5,67 In / 144,1 mm		High Strength @ 50 Hz 1173 HP
Shaft Diameter	1,18 In / 30 mm		Max Staging: Shaft
Area	1,02 Sq In / 658,34 mm²		Standart @ 50 Hz 750 Stages
Stage Type	Radial Flow		High Strength @ 50 Hz 1033 Stages
Rotational Direction	CW		Max Staging: Thrust Bearing- Floater Pump
Fluid Specific Gravity	1.0		Std (230°F BHT Max) @ 50 Hz 235 Stages
Housing Pressure Limit	6000 PSI		Hi-Ld (250°F BHT Max) @ 50 Hz 297 Stages

449-8000

Pumps 449 Series



Pumps 449 Series

449-8000

HSG	Length		Weight		Standart Pump				Abrasion resistant Pump			
	Feet	Meters	Lbs	Kgs	Floater		Packet		Floater		Packet	
					Stgs	Part No	Stgs	Part No	Stgs	Part No	Stgs	Part No
1	11,27	3,437	377,0	171	30	122610001			30	AR122610001		
2	12,91	3,937	429,9	195	35	122610002			35	AR122610002		
3	14,55	4,437	482,8	219	41	122610003			41	AR122610003		
4	16,19	4,937	535,7	243	46	122610004			46	AR122610004		
5	17,83	5,437	586,4	266	52	122610005			52	AR122610005		
6	19,47	5,937	641,5	291	57	122610006			57	AR122610006		
7	21,11	6,437	692,2	314	63	122610007			63	AR122610007		

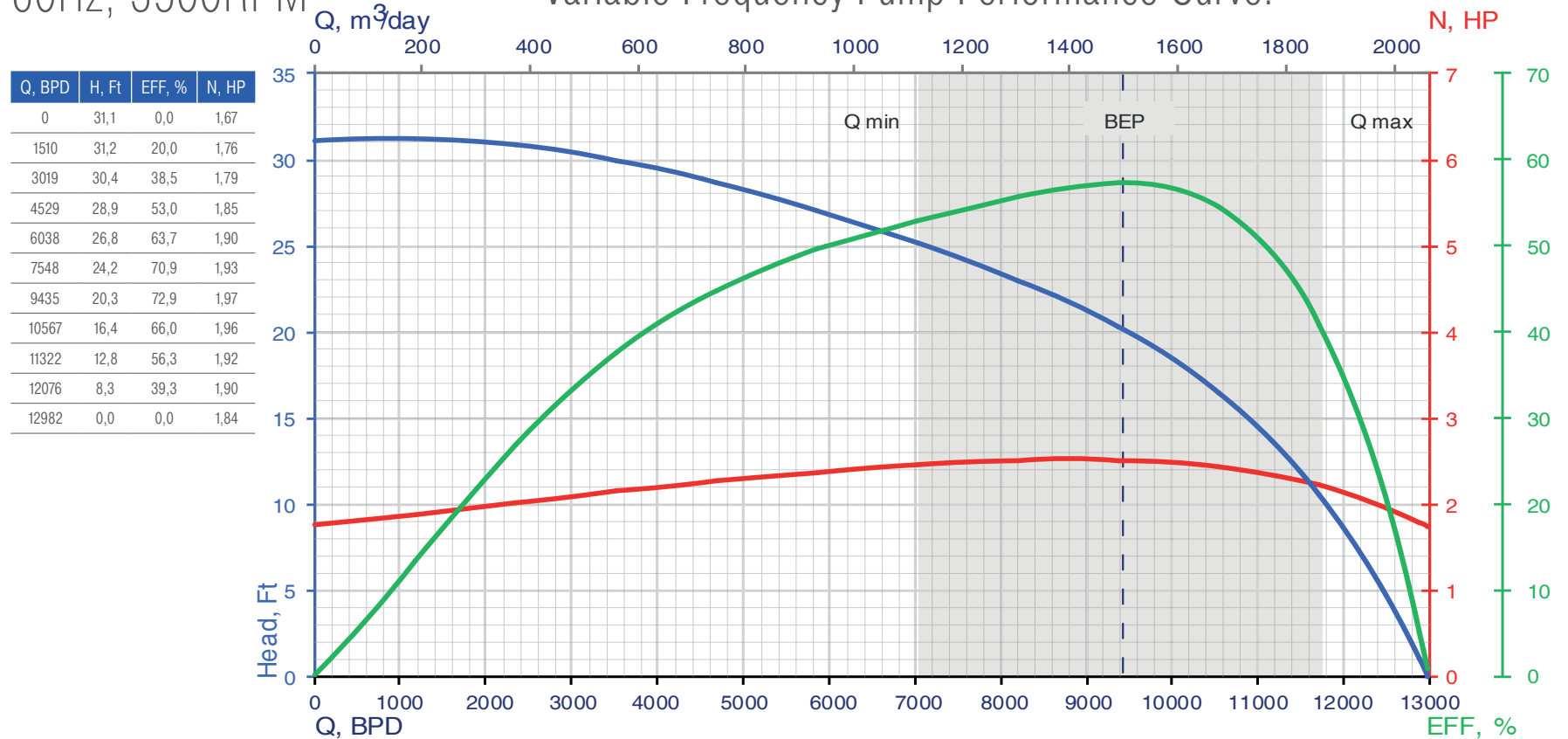
Description	Length		Weight		Standart	Corrosion-resistant
	Feet	Meters	Lbs	Kgs	Part No	Part No
Discharge Head (3-1/2" 10RD NUE)	0,66	0,2	11,2	5,1	12481027502	CR12481027502
Check valve (3-1/2" 10RD NUE)	0,71	0,215	17,9	8,1	KOSH892	CRKOSH892
Drain valve (3-1/2" 10RD NUE)	0,64	0,195	10,1	4,6	KS892	CRKS892
Bolt On Intake	0,94	0,287	26,0	11,8	16001000	CR16001000

449-9500

Pumps 449 Series

60Hz, 3500RPM

Variable Frequency Pump Performance Curve.



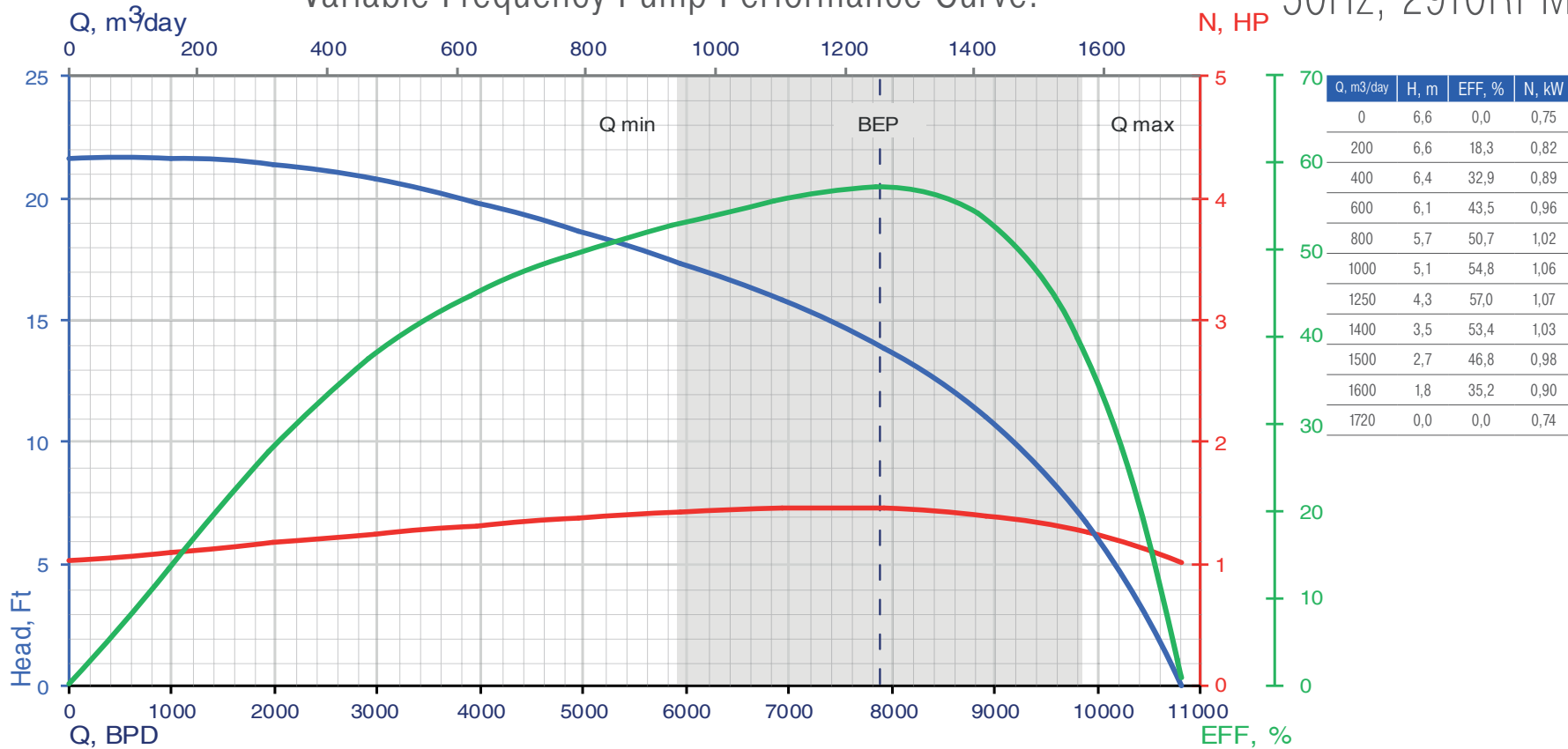
ENGINEERING DATA			
Optimum Operating Range	60 Hz	7050-11750 BPD	Shaft limit
Housing Diameter		4,49 In / 114 mm	Standart @ 60 Hz 1023 HP
Minimum Casing Size		5,67 In / 144,1 mm	High Strength @ 60 Hz 1408 HP
Shaft Diameter		1,18 In / 30 mm	Max Staging: Shaft
Area		1,02 Sq In / 658,34 mm ²	Standart @ 60 Hz 407 Stages
Stage Type		Radial Flow	High Strength @ 60 Hz 560 Stages
Rotational Direction		CW	Max Staging: Thrust Bearing- Floater Pump
Fluid Specific Gravity		1.0	Std (230°F BHT Max) @ 60 Hz 182 Stages
Housing Pressure Limit		6000 PSI	Hi-Ld (250°F BHT Max) @ 60 Hz 230 Stages

Pumps 449 Series

449-9500

Variable Frequency Pump Performance Curve.

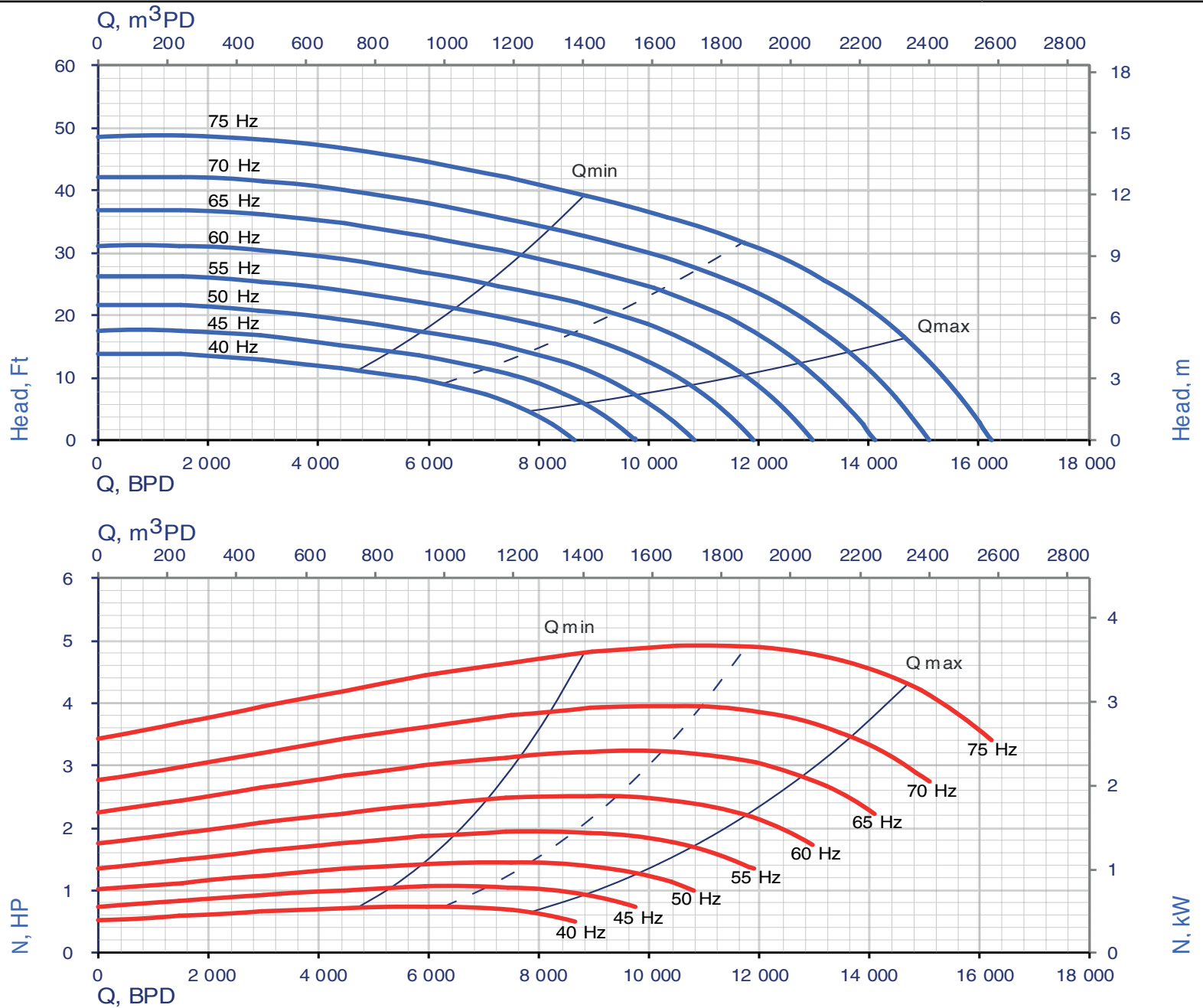
50Hz, 2910RPM



ENGINEERING DATA			
Optimum Operating Range	50 Hz	5925-9875 BPD	Shaft limit
Housing Diameter	4,49 In / 114 mm		Standart @ 50 Hz 852 HP
Minimum Casing Size	5,67 In / 144,1 mm		High Strength @ 50 Hz 1173 HP
Shaft Diameter	1,18 In / 30 mm		Max Staging: Shaft
Area	1,02 Sq In / 658,34 mm²		Standart @ 50 Hz 586 Stages
Stage Type	Radial Flow		High Strength @ 50 Hz 560 Stages
Rotational Direction	CW		Max Staging: Thrust Bearing- Floater Pump
Fluid Specific Gravity	1.0		Std (230°F BHT Max) @ 50 Hz 263 Stages
Housing Pressure Limit	6000 PSI		Hi-Ld (250°F BHT Max) @ 50 Hz 332 Stages

449-9500

Pumps 449 Series



Pumps 449 Series

449-9500

HSG	Length		Weight		Standart Pump				Abrasion resistant Pump			
	Feet	Meters	Lbs	Kgs	Floater		Packet		Floater		Packet	
					Stgs	Part No	Stgs	Part No	Stgs	Part No	Stgs	Part No
1	11,27	3,437	324,1	147	29	122612501			29	AR122612501		
2	12,91	3,937	396,8	180	34	122612502			34	AR122612502		
3	14,55	4,437	469,6	213	39	122612503			39	AR122612503		
4	16,19	4,937	542,3	246	44	122612504			44	AR122612504		
5	17,83	5,437	617,3	280	50	122612505			50	AR122612505		
6	19,47	5,937	670,2	304	55	122612506			55	AR122612506		
7	21,11	6,437	725,3	329	60	122612507			60	AR122612507		

Description	Length		Weight		Standart	Corrosion-resistant
	Feet	Meters	Lbs	Kgs	Part No	Part No
Discharge Head (3-1/2" 10RD NUE)	0,66	0,2	11,2	5,1	12481027502	CR12481027502
Check valve (3-1/2" 10RD NUE)	0,71	0,215	17,9	8,1	KOSH892	CRKOSH892
Drain valve (3-1/2" 10RD NUE)	0,64	0,195	10,1	4,6	KS892	CRKS892
Bolt On Intake	0,94	0,287	26,0	11,8	16001000	CR16001000