

Close Coupled End Suction Centrifugal Pump — Type 3D SERIES

EBARA introduces the 3D SERIES which is perfectly interchangeable with the 3 SERIES stainless steel range. The stainless steel hydraulic section and the motor are manufactured according to EBARA's rigorous standards and are the same on both product versions. This allows significant advantages to both the end user and the installer, as you can transform the product based on the application simply purchasing the pump body and keeping intact the extraordinary performances of the stainless steel hydraulics. Moreover, the complete 3D SERIES and 3 SERIES ranges can be customized with different mechanical seals and motors.

APPLICATIONS

- Handling of water and clean, chemically non-aggressive liquids.
 Water supply - Boosting system
- Washing plants Industry
- Water circulation in climate control systems

Quality . Value . Performan

• Irrigation - Agriculture

FEATURES

- 3D SERIES is the new EBARA range of close coupled pumps (3D) and standardized pumps manufactured according to EN733 (3DS-3DP) with cast iron body and AISI 304 or AISI 316 stainless steel impeller.
- 3D, 3DS and 3DP pumps represent a versatile range suitable for a lot of applications and
 offer significant advantages in terms of reliability, efficiency and cost saving.
- The pumps are "Back pull-out" design: the motor, the coupling, the support and the impeller can be removed without disconnecting the pump body from the pipes.









Close Coupled End Suction Centrifugal Pump

3D SERIES

SPECIFICATIONS

- Available with 50Hz (2 and 4 poles)
- · Perfectly interchangeable with the stamped steel 3 SERIES version
- High energy efficiency up to 85% thanks to the impeller and new volute: MEI > 0.4
- Cast iron pump body EN-GJL-250-EN 1561
- Mechanical seal conforming to EN12756 (ex DIN 24960)
- AISI 304 stainless steel impeller, stamped and welded with laser technology, for sizes 32, 40 and 50; AISI 316 microcasted steel for all size 65 versions

PUMP

- 50Hz version : Flow rate up to 138 m³/h Head up to 71 m
- Temperature of the pumped liquid :

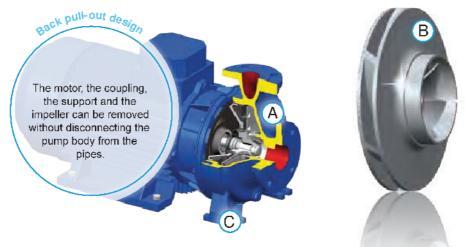
from -5° C to $+90^{\circ}$ C for the standard version from -5° C to $+110^{\circ}$ C for the H-HS-HW-HSW versions from -5° C to $+120^{\circ}$ C for the E version

- Maximum operating pressure : 10 bar (PN 10)
- Cast iron pump body EN-GJL-250-EN 1561
- Mechanical seal conforming to EN12756 (ex DIN 24960)
- 3DP SERIES available in the bare shaft version (3DPF)

MOTOR

- · IE2 motors according to Regulation (CE) no. 640/2009 and IEC 60034-30; IE3 upon request
- Protection rating: IP55
- · Insulation class: F
- Performances according to EN 60034-1
- Continuous operation

CONSTRUCTION



Pump Body : A

- · High resistant to pipe stresses, thanks to its cast iron structure with integrated support feet
- High accurate design to reduce pressure losses
- · Perfectly interchangeable with the 3 SERIES stamped steel body

Impeller : B

- · Made of stainless steel, with high hydraulic efficiency and excellent NPSH value
- · Hydraulically balanced to prevent axial thrust towards the seal
- · Efficiency level exceeding 85% for size 65 pumps

Support structure : C

· Reinforced to with stand forces and stresses of the plant

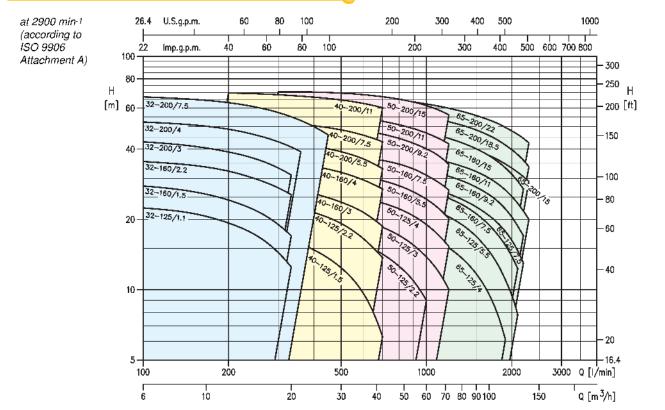
Motors:

- IE2
- IE3 from 7.5kW up to 22kW
- Other version available upon request.

Close Coupled End Suction Centrifugal Pump

3D SERIES

PERFORMANCE CHART (2 POLE)



3D SERIES (.) 32

	- F	2 2		Q=Flow rate										
Model			l/min	100	150	200	250	300	333	360	400	450		
widder	[HP]	[kW]	m ³ /h	6	9	12	15	18	20	21.6	24	27		
	1							H=Head [m]						
3D(.) 32-125/1.1 (M)	1.5	1.1		22.4	21.2	19.3	17.1	14.4	12.5	-	-	-		
3D(.) 32-160/1.5 (M)	2	1.5		27.5	25.9	23.7	21.3	18.5	16.4	-	-			
3D(.) 32-160/2.2 (M)	3	2.2		35.4	34.1	32.2	29.8	27.3	25.5	-	-			
3D(.) 32-200/3.0	4	3		43.0	41.0	39.0	36.5	33.0	31.0	-	-	-		
3D(.) 32-200/4.0	5.5	4		52.5	51.0	49.0	46.0	43.0	41.0	39.0	-	-		
3D(.) 32-200/7.5	10	7.5		67.0	65.0	63.0	61.0	57.0	55.0	53.0	50.0	46.0		

3D SERIES (.) 40

	1	P2	Q=Flow rate										
Model	- 2		I/min 2	200	250	300	350	400	450	500	600	700	
induct	[HP]	[kW]	m ³ /h	12	15	18	21	24	27	30	36	42	
								H=Head [m]					
3D(.) 40-125/1.5 (M)	2	1.5	1	18.2	17.6	16.8	15.9	14.8	13.7	12.4	9.6	6.3	
3D(.) 40-125/2.2 (M)	3	2.2	2	24.4	23.9	23.2	22.4	21.4	20.4	19.2	16.5	13.7	
3D(.) 40-160/3.0	4	3	2	29.4	28.7	27.8	26.8	25.8	24.8	23.7	21.4	18.7	
3D(.) 40-160/4.0	5.5	4	3	37.2	36.5	35.7	34.8	33.8	32.8	31.8	29.5	27.0	
3D(.) 40-200/5.5	7.5	5.5	4	44.5	44.0	43.0	42.0	41.0	40.0	39.0	36.3	33.0	
3D(.) 40-200/7.5	10	7.5	5	53.5	53.0	52.0	51.5	50.5	49.5	48.5	46.0	43.0	
3D(.) 40-200/11	15	11	7	70.0	69.0	68.5	67.5	67.0	66.0	65.0	63.0	60.0	

3D SERIES (.) 50

		P2		Q=Flow rate											
Model			l/min 400	500	600	700	800	900	1000	1100	1200				
model	[HP]	[kW]	m ³ /h 24	30	36	42	48	54	60	66	72				
				H=Head [m]											
3D(.) 50-125/2.2 (M)	3	2.2	18.0	17.0	15.7	14.2	12.6	10.9	9.0	-	-				
3D(.) 50-125/3.0	4	3	21.5	20.8	19.8	18.5	17.1	15.5	13.8	12.0	10.0				
3D(.) 50-125/4.0	5.5	4	25.8	25.3	24.5	23.5	22.2	20.7	19.0	17.2	15.3				
3D(.) 50-160/5.5	7.5	5.5	32.0	31.5	30.5	29.3	27.9	26.2	24.4	22.4	20.0				
3D(.) 50-160/7.5	10	7.5	38.2	37.6	36.9	35.8	34.5	32.9	30.9	28.9	26.7				
3D(.) 50-200/9.2	12.5	9.2	-	49.5	48.0	46.5	44.5	42.5	40.0	37.6	34.4				
3D(.) 50-200/11	15	11	-	55.5	54.5	52.5	51.0	49.0	47.0	44.5	42.0				
3D(.) 50-200/15	20	15		69.5	68.5	67.0	65.5	63.5	61.5	59.0	56.0				
2D CEDIEC / X CE															

3D SERIES (.) 65

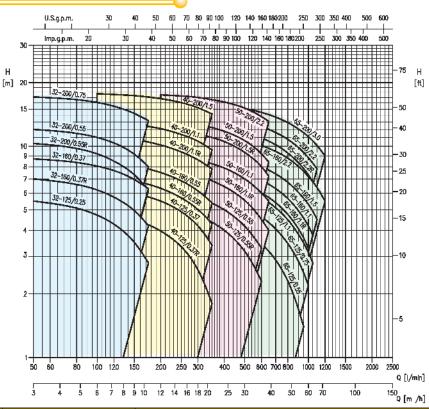
Model	F	9 2	Q=Flow rate										
			l/min 600	700	1000	1300	1600	1900	2100	2200	2300		
model	[HP]	[kW]	m ³ /h 36	42	60	78	96	114	126	132	138		
							H=Head [m]						
3D(.) 65-125/4.0	5.5	4	20.4	19.8	17.2	14.0	10.4	6.0	-	-	-		
3D(.) 65-125/5.5	7.5	5.5	-	25.0	22.5	19.4	15.5	11.0	8.0	-	-		
3D(.) 65-125/7.5	10	7.5	-	29.6	27.5	24.7	21.5	17.8	14.7	13.0	-		
3D(.) 65-160/7.5	10	7.5	-	29.0	26.6	23.5	19.8	15.5	12.3	-	-		
3D(.) 65-160/9.2	12.5	9.2	-	34.7	32.4	29.6	26.3	22.2	18.8	17.0	-		
3D(.) 65-160/11	15	11	-	39.0	37.0	34.0	31.0	27.0	23.0	22.0	20.0		
3D(.) 65-160/15	20	15	-	46.0	44.0	41.5	38.4	34.6	31.9	30.5	29.0		
3D(.) 65-200/15	20	15	-	51.0	47.0	43.0	38.6	33.3	29.2	27.0	-		
3D(.) 65-200/18.5	25	18.5	-	58.0	55.0	51.0	47.0	41.5	37.9	35.9	33.6		
3D(.) 65-200/22	30	22	-	65.5	62.5	58.5	54.5	49.5	46.0	44.5	42.5		

(M) Single-phase version only for 3D SERIES

Close Coupled End Suction Centrifugal Pump

PERFORMANCE CHART (4 POLE)

at 1450 min-1 (according to ISO 9906 Attachment A)



3D SERIES (.)4 32

	P2			Q=Flow rate										
Model			Vmin		50	100		150						
	(HP)	[kW]	m³/h		3	e	H=Hea	ad [m]	9		10.5			
3D(.)4 32-125/0.25	0.33	0.25	5.5			4.	4.7		3.5		2.8			
3D(.)4 32-125/0.37R	0.5	0.37			7.0	6.			5.0		4.2			
3D(.)4 32-125/0.37	0.5	0.37			8.7	6.			.0		6.3			
3D(.)4 32-125/0.55R	0.75	0.55			10.3	9.			.3		6.2			
3D(.)4 32-125/0.55	0.75	0.55			12.0	11			9.2		8.0			
3D(.)4 32-125/0.75	1	0.75			17.1	16	.1	1	4.3		13.2			
3D SERIES (.)4 40														
		P2	Vmin	100	150	175		ow rate	250	300 I	350			
Model	(HP)	[kW]	m ³ /h	6	9	10.5		12 ad [m]	15	18	21			
3D(.)4 40-125/0.37R	0.5	0.37		4.8	4.5	4.3			3.4	2.6	1.8			
3D(.)4 40-125/0.37	0.5	0.37		6.3 6.0		5.8			4.9	4.2	3.4			
3D(.)4 40-125/0.55R	0.75	0.55				6.6			5.7	5.0	4.3			
3D(.)4 40-125/0.55	0.75	0.55	8.6		<u>6.9</u> 8.1	7.8			6.9	6.2	5.4			
3D(.)4 40-125/1.1R	1.5	1.1		11.2			10.5 1		9.4	8.6	7.8			
3D(.)4 40-125/1.1	1.5	1.1		13.2	10.8 12.7	12.4			11.4	10.6	9.6			
3D(.)4 40-125/1.5	2	1.5		17.7	17.3	17.1	1	6.8	16.1	15.2	14.2			
3D SERIES (.)4 50														
		P ₂					Q=Flo							
Model		1	1/min	200	250	300	350	400	500	600	650			
	[HP]	[kW]	m ³ /h	12	15	18	21 H=Hea	24 ad [m]	30	36	39			
3D(.)4 50-125/0.55R	0.75	0.55		5.2	5.0	4.7	4.4	4.0	3.2	2.3	-			
3D(.)4 50-125/0.55	0.75	0.55		6.2	6.0	5.7	5.4	5.0	4.2	3.3	-			
3D(.)4 50-160/1.1R	1.5	1.1		7.8	7.6	7.2	6.9	6.4	5.5	4.5	4.0			
3D(.)4 50-160/1.1	1.5	1.1		9.1	8.9	8.6	8.3	7.9	7.0	6.0	5.5			
3D(.)4 50-200/1.5R	2	1.5		12.1	11.8	11.4	11.0	10.5	9.3	8.0	7.2			
3D(.)4 50-200/0.1.5	2	1.5		13.3	13.D	12.7	12.2	11.8	10.6	9.2	8.4			
3D(.)4 50-200/2.2	3	2.2		17.5	17.3	17.0	16.6	16.2	15.1	13.8	13.1			
3D SERIES (.)4 65														
		P ₂	Unin			00 1 000		ow rate	4000 1 4					

Model		2	1/min 300	350	500	600	800	950	1000	1050	1100	1200
	[HP]	[kW]	m ³ /h 18	21	30	36	48	57	60	63	66	72
							H=He	ad [m]				
3D(.)4 65-125/0.55	0.75	0.55	4.8	4.6	4.0	3.5	2.3	1.4		-	-	-
3D(.)4 65-125/0.75	1	0.75	6.0	5.8	5.2	4.6	3.5	2.5	2.2	-	-	-
3D(.)4 65-125/1.1	1.50	1.10	7.2	7.0	6.3	5.7	4.5	3.5	3.2	2.8	-	-
3D(.)4 65-160/1.1	1.50	1.10	-	8.1	7.4	6.9	5.7	4.6	4.2	3.8	-	-
3D(.)4 65-160/1.5	2	1.50	_	9.2	8.5	8.0	6.7	5.7	5.3	4.9	4.5	-
3D(.)4 65-160/2.2	3	2.20	-	11.3	10.6	10.1	8.8	7.6	7.2	6.8	6.4	5,5
3D(.)4 65-200/2.2R	3	2.20	-	12.4	11.6	10.9	9.3	7.8	7.3	6.8	-	-
3D(.)4 65-200/2.2	3	2.20	-	13.9	13.0	12.4	10.8	9.3	8.8	8.3	7.8	-
3D(.)4 65-200/3	4	3		15.8	15.1	14.4	12.9	11.6	11.1	10.6	10.1	9

* Dimensional details are provided for reference only. * A

* All specifications are subject to change without prior notice.



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