

# پیشگامان صنعت و ایمنی پرگاس

PISHGAMAN SANAAT & IMENI PERGAS



## طراح، مشاور و مجری سیستم‌های ایمنی و تاسیساتی

دارای صلاحیت سازمان آتش‌نشانی تهران

اخذ تاییدیه آتش‌نشانی

برای اطلاعات بیشتر اسکن کنید



تهران . خیابان سعدی شمالی . خیابان

شهید هرادای نور . پلاک ۳۱ . واحد ۱



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۷۷۶۷۸۶۵۹



# 3D SERIES

## CENTRIFUGAL PUMPS CLOSE COUPLED AND STANDARDIZED EN 733

Centrifugal pumps close coupled (3D) and standardized EN 733 (3DS-3DP) in cast iron.

### APPLICATIONS

- Water and clean liquids not chemically aggressive handling
- Water supply
- Pressure boosting
- Washing and industrial plants
- Water circulation in air-conditioning systems
- Irrigation and agriculture

### TECHNICAL DETAILS

- Highly resistant construction
- Impeller in stainless steel
- High efficiency

### PUMP TECHNICAL DATA

- Maximum working pressure: 10 bar
  - Temperature of the liquid:
    - 5°C ÷ +90°C
    - 5°C ÷ +110°C (H-HS-HW-HSW versions)
    - 5°C ÷ +120°C (E version)
  - MEI > 0,4 for 3D(.) SERIES 2 poles, MEI > 0,1 for 3D(.) SERIES 4 poles
- For further information please see our Data Book on the web site [www.ebara-europe.com](http://www.ebara-europe.com)

### MOTOR TECHNICAL DATA

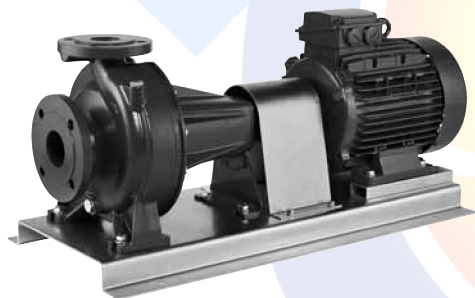
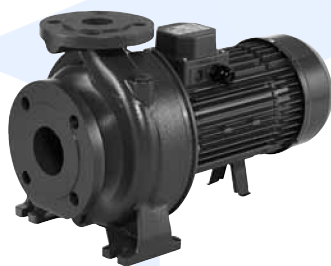
- High efficiency IE2 motors starting from 0,75kW
- High efficiency IE3 motors starting from 7,5kW up to 22kW
- Self-ventilated 2 and 4 poles asynchronous motor
- Insulation class F (B for high temperatures)
- Protection degree IP 55
- 230V ±10% single phase voltage 50Hz,
- 230/400 ±10% (up to 4kW included) three phase 50Hz,
- 400/690V ±10% (from 5,5 kW and above) three phase 50Hz
- Protection is user's responsibility

### MATERIALS

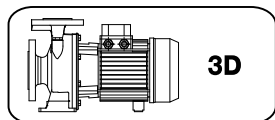
- Pump casing in cast iron EN-GJL-250-EN 1561
- Impeller in:
  - AISI 304 for 3D(.) SERIES 32, 40, 50
  - AISI 316 microcasted for 3D(.) SERIES 65
- Shaft in AISI 304 (part in contact with the liquid)
- Mechanical seal in:
  - Ceramic/Carbon/NBR (standard)
  - Ceramic/Carbon/FPM (H version)
  - SiC/SiC/FPM (HS version)
  - Tungsten Carbide/Tungsten Carbide/FPM (HW version)
  - SiC/Tungsten Carbide/FPM (HSW version)
  - Ceramic/Carbon/EPDM (E version)

### SPECIAL VERSIONS

- Special voltages
- Special mechanical seals

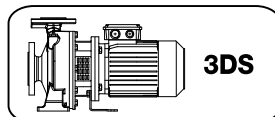


Available in 3 different versions with 2 and 4 pole motors



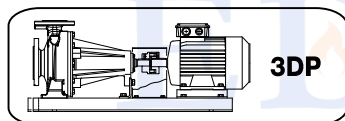
**3D**

Monobloc with extended motor shaft



**3DS**

Monobloc with standard motor and rigid joint



**3DP**

On base, with standard motor and flexible coupling

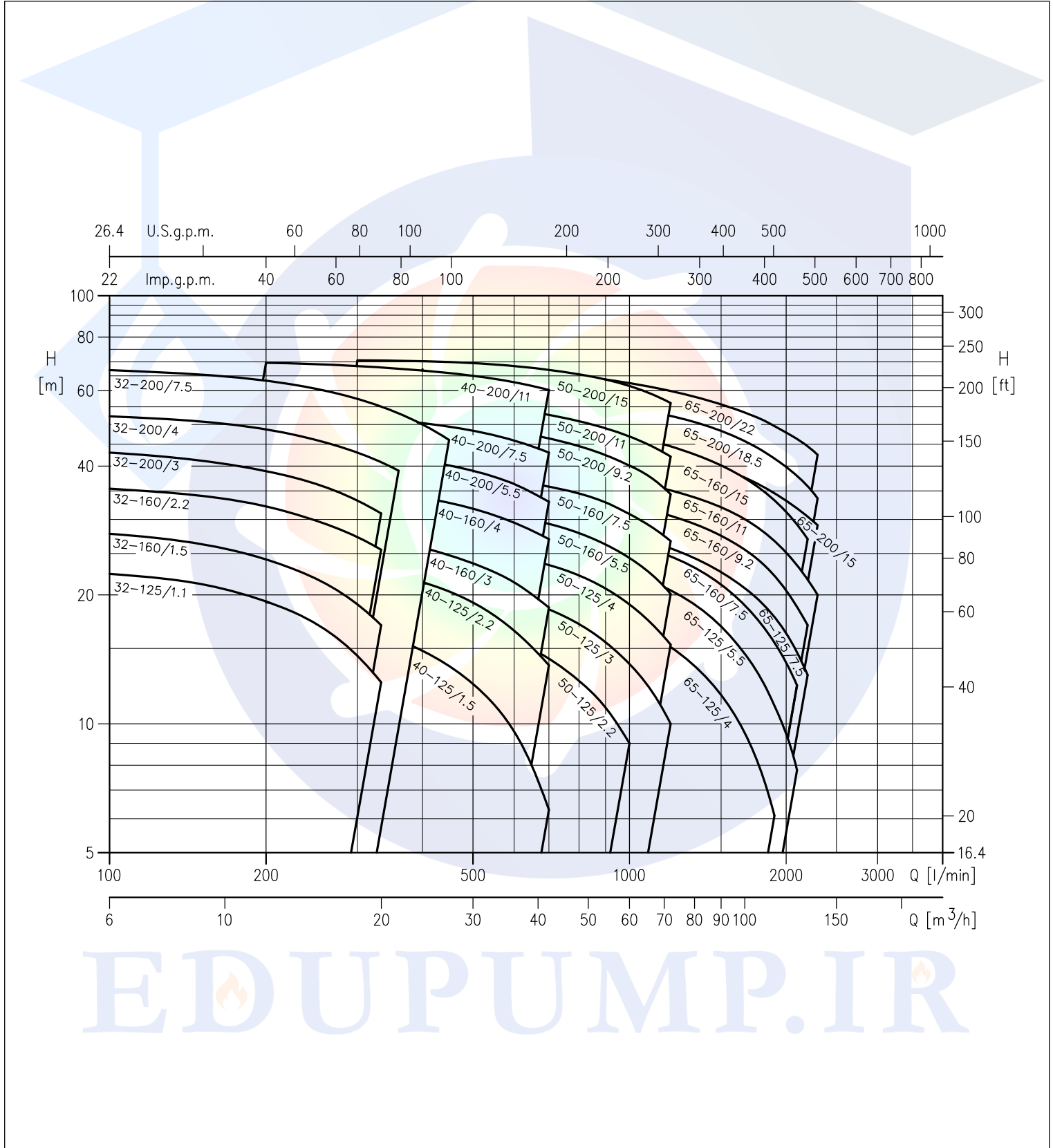


# 3D SERIES

## CENTRIFUGAL PUMPS CLOSE COUPLED AND STANDARDIZED EN 733

PERFORMANCE CHART at 2900 min<sup>-1</sup> (according to ISO 9906 Attachment A)

2 Poles



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# 3D SERIES

## CENTRIFUGAL PUMPS CLOSE COUPLED AND STANDARDIZED EN 733

PERFORMANCE TABLE 3D(.) SERIES 32

2 Poles

Model	P <sub>2</sub>		Q=Flow rate									
	[HP]	[kW]	l/min	100	150	200	250	300	333	360	400	450
			m <sup>3</sup> /h	6	9	12	15	18	20	21,6	24	27
			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	-

PERFORMANCE TABLE 3D(.) SERIES 40

2 Poles

Model	P <sub>2</sub>		Q=Flow rate									
	[HP]	[kW]	l/min	200	250	300	350	400	450	500	600	700
			m <sup>3</sup> /h	12	15	18	21	24	27	30	36	42
			H=Head [m]									
3D(.) 40-125/1.5 (M)	2	1,5	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	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	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	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	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	53,5	53,0	52,0	51,5	50,5	49,5	48,5	46,0	43,0	-
3D(.) 40-200/11	15	11	70,0	69,0	68,5	67,5	67,0	66,0	65,0	63,0	60,0	-

PERFORMANCE TABLE 3D(.) SERIES 50

2 Poles

Model	P <sub>2</sub>		Q=Flow rate									
	[HP]	[kW]	l/min	400	500	600	700	800	900	1000	1100	1200
			m <sup>3</sup> /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	-

PERFORMANCE TABLE 3D(.) SERIES 65

2 Poles

Model	P <sub>2</sub>		Q=Flow rate									
	[HP]	[kW]	l/min	600	700	1000	1300	1600	1900	2100	2200	2300
			m <sup>3</sup> /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	29,0v	-
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

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# 3D SERIES

## CENTRIFUGAL PUMPS CLOSE COUPLED AND STANDARDIZED EN 733

PERFORMANCE CURVES 3D(.) SERIES 32-160 at 2900 min<sup>-1</sup> (according to ISO 9906 Attachment A)

2 Poles

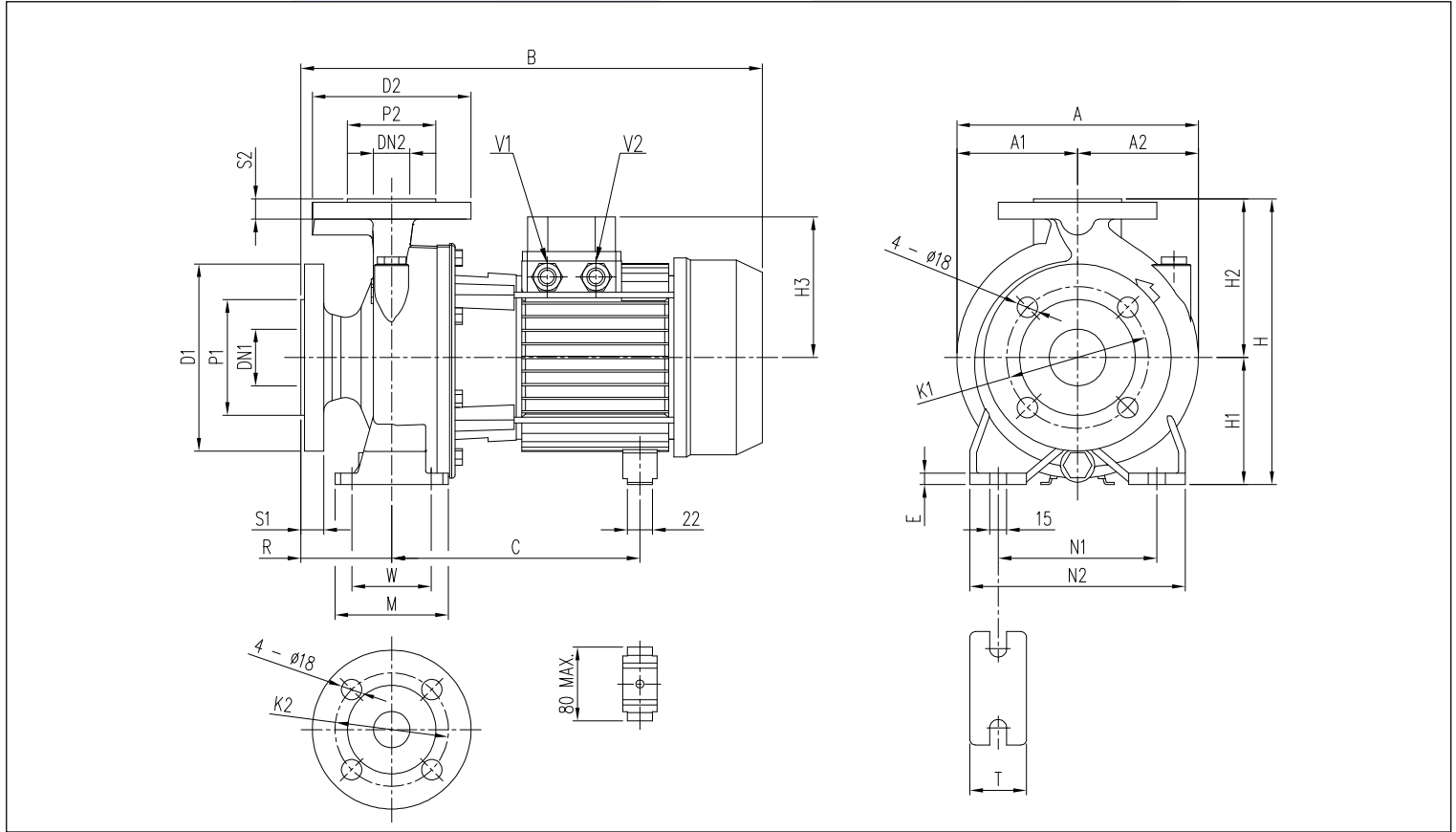


# 3D SERIES

## CENTRIFUGAL PUMPS CLOSE COUPLED AND STANDARDIZED EN 733

DIMENSIONS 3D SERIES - up to 11kW

2 Poles



DIMENSIONAL TABLE

Model	Dimensions [mm]																											Weight [kg]								
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3 [2]	[1]	R	W	M	N1	N2	T	E	A	A1	A2	B [2]	[1]	[*]	C [2]	[1]	V1 [1]	[2]	V2 [1]	[2]	[1]	[*]
3D 32-125/1.1(M)	50	102	125	165	20	32	78	100	140	18	252	112	140	141	124	80	70	100	140	190	50	10	213	106,5	106,5	408	407	-	219±230	219±230	-	M20x1,5	PG13,5	25,0	29,5	-
3D 32-160/1.5(M)	50	102	125	165	20	32	78	100	140	18	292	132	160	141	124	80	70	100	190	240	50	10	254	127	127	408	432	-	219±230	219±230	-	M20x1,5	PG13,5	29,0	33,5	-
3D 32-160/2.2(M)	50	102	125	165	20	32	78	100	140	18	292	132	160	141	124	80	70	100	190	240	50	10	254	127	127	408	432	-	219±230	244±255	-	M20x1,5	PG13,5	35,7	36,0	-
3D 32-200/3.0	50	102	125	165	20	32	78	100	140	18	340	160	180	-	124	80	70	100	190	240	50	10	296	148	148	-	471	-	-	244±255	-	-	PG13,5	-	47,5	-
3D 32-200/4.0	50	102	125	165	20	32	78	100	140	18	340	160	180	-	141	80	70	100	190	240	50	10	296	148	148	-	494	-	-	253	-	-	PG16	-	50,0	-
3D 32-200/7.5	50	102	125	165	20	32	78	100	140	18	340	160	180	-	150	80	70	100	190	240	50	10	296	148	148	-	519	539	-	275	PG13,5	-	PG16	-	62,0	65,1
3D 40-125/1.5(M)	65	122	145	185	20	40	88	110	150	18	252	112	140	141	124	80	70	100	160	210	50	10	220	108	112	408	407	-	219±230	219±230	-	M20x1,5	PG13,5	25,5	30,0	-
3D 40-125/2.2(M)	65	122	145	185	20	40	88	110	150	18	292	132	160	-	124	80	70	100	190	240	50	12	254	127	127	-	471	-	-	244±255	-	-	PG13,5	-	31,7	32,0
3D 40-160/3.0	65	122	145	185	20	40	88	110	150	18	292	132	160	-	141	80	70	100	190	240	50	12	254	127	127	-	494	-	-	253	-	-	PG16	-	48,0	-
3D 40-160/4.0	65	122	145	185	20	40	88	110	150	18	292	132	160	-	141	80	70	100	190	240	50	12	254	127	127	-	494	-	-	253	-	-	PG16	-	48,0	-
3D 40-200/5.5	65	122	145	185	20	40	88	110	150	18	340	160	180	-	150	100	70	100	212	265	50	12	296	148	148	-	539	-	-	275	PG13,5	-	PG16	-	60,0	-
3D 40-200/7.5	65	122	145	185	20	40	88	110	150	18	340	160	180	-	150	100	70	100	212	265	50	12	296	148	148	-	539	559	-	275	PG13,5	-	PG16	-	63,0	66,1
3D 40-200/11	65	122	145	185	20	40	88	110	150	18	340	160	180	-	178	100	70	100	212	265	50	12	296	148	148	-	595	-	-	359	PG13,5	-	PG21	-	80,0	82,4
3D 50-125/2.2(M)	65	122	145	185	20	50	102	125	165	20	292	132	160	141	124	100	70	100	190	240	50	10	254	127	127	428	452	-	219±230	244±255	-	M20x1,5	PG13,5	34,4	37,0	-
3D 50-125/3.0	65	122	145	185	20	50	102	125	165	20	292	132	160	-	124	100	70	100	190	240	50	10	254	127	127	-	491	-	-	244±255	-	-	PG13,5	-	39,5	-
3D 50-125/4.0	65	122	145	185	20	50	102	125	165	20	292	132	160	-	141	100	70	100	190	240	50	10	254	127	127	-	514	-	-	253	-	-	PG16	-	48,0	-
3D 50-160/5.5	65	122	145	185	20	50	102	125	165	20	340	160	180	-	150	100	70	100	212	265	50	10	296	148	148	-	539	-	-	275	PG13,5	-	PG16	-	60,0	-
3D 50-160/7.5	65	122	145	185	20	50	102	125	165	20	340	160	180	-	150	100	70	100	212	265	50	10	296	148	148	-	539	559	-	275	PG13,5	-	PG16	-	64,0	67,1
3D 50-200/9.2	65	122	145	185	20	50	102	125	165	20	360	160	200	-	178	100	70	100	212	265	50	10	296	148	148	-	595	-	-	359	PG13,5	-	PG21	-	77,0	77
3D 50-200/11	65	122	145	185	20	50	102	125	165	20	360	160	200	-	178	100	70	100	212	265	50	10	296	148	148	-	595	-	-	359	PG13,5	-	PG21	-	80,0	82,4
3D 65-125/4.0	80	138	160	200	22	65	122	145	185	20	340	160	180	-	141	100	95	125	212	280	65	12	263	127	136	-	514	-	-	253	-	-	PG16	-	53,0	-
3D 65-125/5.5	80	138	160	200	22	65	122	145	185	20	340	160	180	-	150	100	95	125	212	280	65	12	263	127	136	-	539	-	-	275	PG13,5	-	PG16	-	65,0	-
3D 65-125/7.5	80	138	160	200	22	65	122	145	185	20	340	160	180	-	150	100	95	125	212	280	65	12	263	127	136	-	539	559	-	275	PG13,5	-	PG16	-	69,5	72,6
3D 65-160/7.5	80	138	160	200	22	65	122	145	185	20	360	160	200	-	150	100	95	125	212	280	65	12	296	148	148	-	539	559	-	275	PG13,5	-	PG16	-	70,0	73,1
3D 65-160/9.2	80	138	160	200	22	65	122	145	185	20	360	160	200	-	178	100	95	125	212	280	65	12	296	148	148	-	595	-	-	359	PG13,5	-	PG21	-	85,0	85
3D 65-160/11	80	138	160	200	22	65	122	145	185	20	360	160	200	-	178	100	95	125	212	280	65	12	296	148	148	-	595	-	-	359	PG13,5	-	PG21	-	85,0	87,4

[1]= Three phase only [2]= Single phase only [\*]= IE3 motors only

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# شرکت پیشگامان صنعت و ایمنی پرفگاس



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