



## FICHA TÉCNICA

# Bomba Vertical Multicelular CDMF

Bombas verticais multicelulares in-line de alta eficiência em aço inoxidável, ideais para pressurização industrial e tratamento de águas.



A série CDMF é composta por bombas centrífugas multicelulares verticais de alta eficiência com design in-line (aspiração e compressão no mesmo nível). A construção em aço inoxidável e o selo mecânico de cartucho garantem uma elevada durabilidade e facilidade de manutenção. Estas bombas são ideais para sistemas de pressurização, alimentação de caldeiras, tratamento de águas e aplicações industriais exigentes onde a fiabilidade e a eficiência energética são fundamentais.

## APLICAÇÕES

- Processos industriais e transferência de líquidos.
- Sistemas de pressurização hidráulica
- Tratamento de águas
- Irrigação agrícola
- Alimentação de caldeiras
- Sistemas de lavagem e limpeza

## DADOS TÉCNICOS

### ESPECIFICAÇÕES TÉCNICAS

Tipo	Bomba centrífuga multicelular
Standard	In-line / DIN
Material	Aço Inoxidável (AISI 304 / 316)
Tensão	220-240V (1~) / 380-415V (3~)
Caudal Máximo	32 m <sup>3</sup> /h
Altura Máxima	250 m
Proteção	IP 55
Isolamento	Classe F
Temp. do líquido	-15°C a +120°C
Pressão Máxima	25 bar / PN25

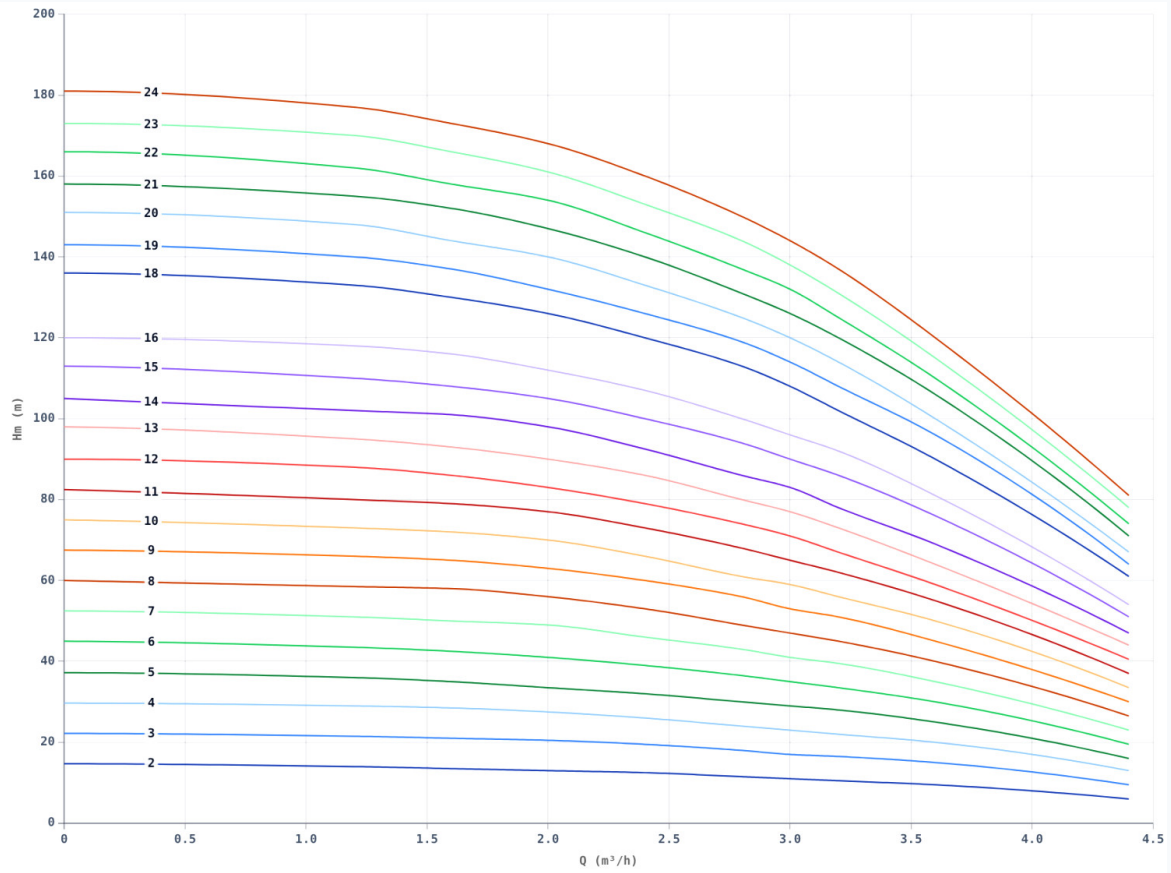
### DETALHES TÉCNICOS

NPSH	2 m
Velocidade Nominal	2900 rpm
Normas	CE / ISO 9906
Selo Mecânico	ALLOY/SIC/NBR (Cartridge)
Rendimento do Motor	Up to 87%
Rendimento da Bomba	Up to 72%
Código de Ligação	F (Flange)

## DIMENSÕES

Modelo	L	L0	L1	L2	W	W1	D	h	h0
CDMF 3	250,0	210,0	158,0	100,0	240,0	180,0	13,0	75,0	50,0
CDMF 5	250,0	210,0	158,0	100,0	240,0	180,0	13,0	75,0	50,0
CDMF 10	280,0	260,0	192,0	130,0	290,0	215,0	14,0	80,0	80,0
CDMF 15	300,0	260,0	192,0	130,0	290,0	215,0	14,0	90,0	90,0
CDMF 20	300,0	260,0	192,0	130,0	290,0	215,0	14,0	90,0	90,0

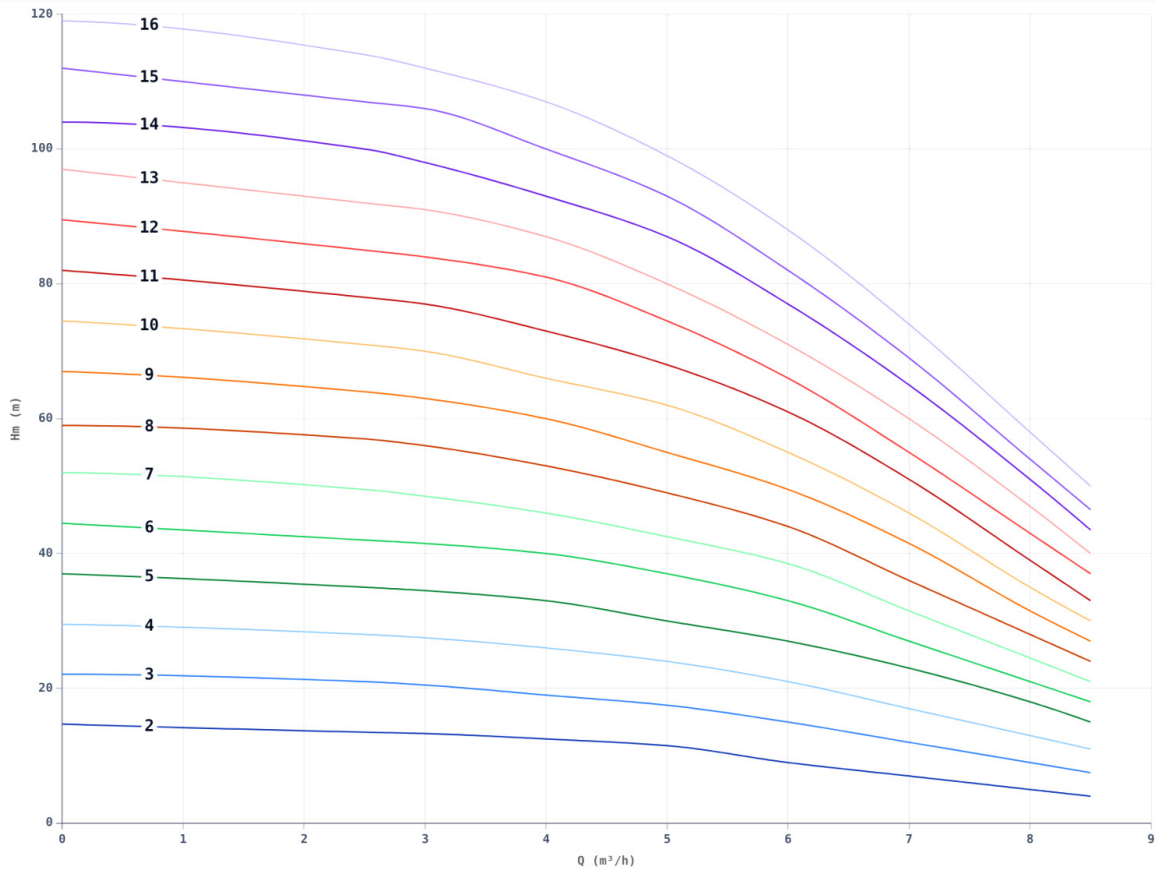
## CURVA DE PERFORMANCE (Q - Hm)



Curvas de caudal (Q) vs. altura manométrica (Hm)

Modelo	kW	CV	A (1~230V)	Ef. Energ.	m³/h	0	1.2	1.6	2	2.4	2.8	3	3.2	3.6	4.4
						Hm (m)									
CDMF 3-2	0,37	0,50	2,10	IE2		14,7	14,0	13,5	13,0	12,5	11,5	11,0	10,5	9,5	6,0
CDMF 3-3	0,37	0,50	2,10	IE2		22,2	21,5	21,0	20,5	19,5	18,0	17,0	16,5	15,0	9,5
CDMF 3-4	0,37	0,50	2,10	IE2		29,7	29,0	28,5	27,5	26,0	24,0	23,0	22,0	20,0	13,0
CDMF 3-5	0,55	0,75	3,65	IE2		37,2	36,0	35,0	33,5	32,0	30,0	29,0	28,0	25,0	16,0
CDMF 3-6	0,55	0,75	3,65	IE2		45,0	43,5	42,5	41,0	39,0	36,5	35,0	33,5	30,0	19,5
CDMF 3-7	0,75	1,00	4,20	IE2		52,5	51,0	50,0	49,0	46,0	43,0	41,0	39,5	35,0	23,0
CDMF 3-8	0,75	1,00	4,20	IE2		60,0	58,5	58,0	56,0	53,0	49,0	47,0	45,0	40,0	26,5
CDMF 3-9	1,10	1,50	6,30	IE2		67,5	66,0	65,0	63,0	60,0	56,0	53,0	51,0	45,0	30,0
CDMF 3-10	1,10	1,50	6,30	IE2		75,0	73,0	72,0	70,0	66,0	61,0	59,0	56,0	50,0	33,5
CDMF 3-11	1,10	1,50	6,30	IE2		82,5	80,0	79,0	77,0	73,0	68,0	65,0	62,0	55,0	37,0
CDMF 3-12	1,10	1,50	6,30	IE2		90,0	88,0	86,0	83,0	79,0	74,0	71,0	67,0	59,0	40,5
CDMF 3-13	1,50	2,00	8,20	IE2		98,0	95,0	93,0	90,0	86,0	80,0	77,0	73,0	64,0	44,0
CDMF 3-14	1,50	2,00	8,20	IE2		105,0	102,0	101,0	98,0	92,5	86,0	83,0	78,0	69,0	47,0
CDMF 3-15	1,50	2,00	8,20	IE2		113,0	110,0	108,0	105,0	100,0	94,0	90,0	86,0	76,0	51,0
CDMF 3-16	1,50	2,00	8,20	IE2		120,0	118,0	116,0	112,0	107,0	100,0	96,0	92,0	81,0	54,0
CDMF 3-18	2,20	3,00	12,10	IE2		136,0	133,0	130,0	126,0	120,0	113,0	108,0	102,0	90,0	61,0
CDMF 3-19	2,20	3,00	12,10	IE2		143,0	140,0	137,0	132,0	126,0	119,0	114,0	108,0	96,0	64,0
CDMF 3-20	2,20	3,00	12,10	IE2		151,0	148,0	144,0	140,0	133,0	125,0	120,0	114,0	100,0	67,0
CDMF 3-21	2,20	3,00	12,10	IE2		158,0	155,0	152,0	147,0	140,0	131,0	126,0	120,0	106,0	71,0
CDMF 3-22	2,20	3,00	12,10	IE2		166,0	162,0	158,0	154,0	146,0	137,0	132,0	125,0	110,0	74,0
CDMF 3-23	2,20	3,00	12,10	IE2		173,0	170,0	166,0	161,0	153,0	144,0	138,0	131,0	115,0	78,0
CDMF 3-24	2,20	3,00	12,10	IE2		181,0	177,0	173,0	168,0	160,0	150,0	144,0	137,0	120,0	81,0

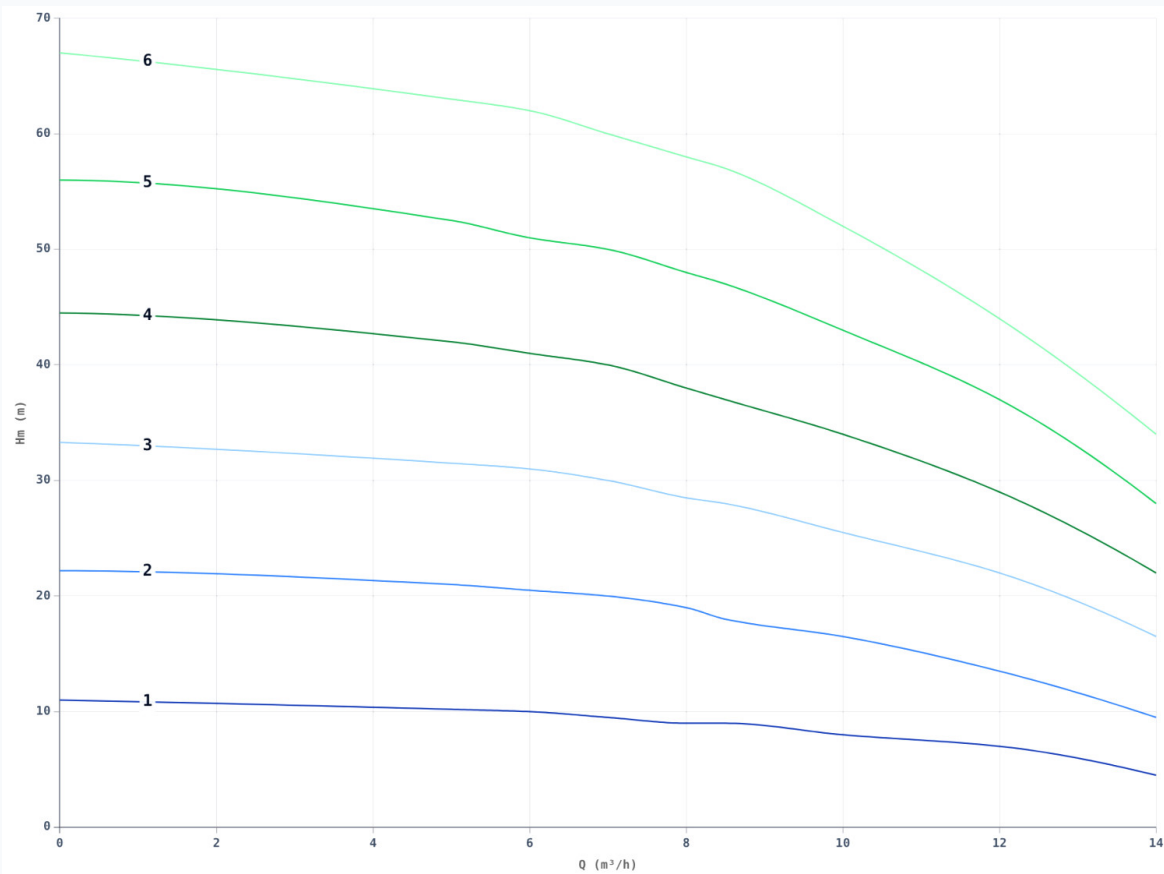
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

Modelo	kW	CV	A (1~230V)	Ef. Energ.	m³/h	Hm (m)									
						0	2.5	3	4	5	6	7	8	8.5	
CDMF 5-2	0,37	0,50	2,10	IE2		14,7	13,5	13,3	12,5	11,5	9,0	7,0	5,0	4,0	
CDMF 5-3	0,55	0,75	3,65	IE2		22,1	21,0	20,5	19,0	17,5	15,0	12,0	9,0	7,5	
CDMF 5-4	0,55	0,75	3,65	IE2		29,5	28,0	27,5	26,0	24,0	21,0	17,0	13,0	11,0	
CDMF 5-5	0,75	1,00	4,20	IE2		37,0	35,0	34,5	33,0	30,0	27,0	23,0	18,0	15,0	
CDMF 5-6	1,10	1,50	6,30	IE2		44,5	42,0	41,5	40,0	37,0	33,0	27,0	21,0	18,0	
CDMF 5-7	1,10	1,50	6,30	IE2		52,0	49,5	48,5	46,0	42,5	38,5	31,5	24,5	21,0	
CDMF 5-8	1,10	1,50	6,30	IE2		59,0	57,0	56,0	53,0	49,0	44,0	36,0	28,0	24,0	
CDMF 5-9	1,50	2,00	8,20	IE2		67,0	64,0	63,0	60,0	55,0	49,5	41,5	31,5	27,0	
CDMF 5-10	1,50	2,00	8,20	IE2		74,5	71,0	70,0	66,0	62,0	55,0	46,0	35,0	30,0	
CDMF 5-11	1,50	2,00	8,20	IE2		82,0	78,0	77,0	73,0	68,0	61,0	51,0	39,0	33,0	
CDMF 5-12	2,20	3,00	12,10	IE2		89,5	85,0	84,0	81,0	74,5	66,0	55,0	43,0	37,0	
CDMF 5-13	2,20	3,00	12,10	IE2		97,0	92,0	91,0	87,0	80,0	71,0	60,0	47,0	40,0	
CDMF 5-14	2,20	3,00	12,10	IE2		104,0	100,0	98,0	93,0	87,0	77,0	65,0	51,0	43,5	
CDMF 5-15	2,20	3,00	12,10	IE2		112,0	107,0	106,0	100,0	93,0	82,0	69,0	54,0	46,5	
CDMF 5-16	2,20	3,00	12,10	IE2		119,0	114,0	112,0	107,0	99,0	88,0	74,0	58,0	50,0	

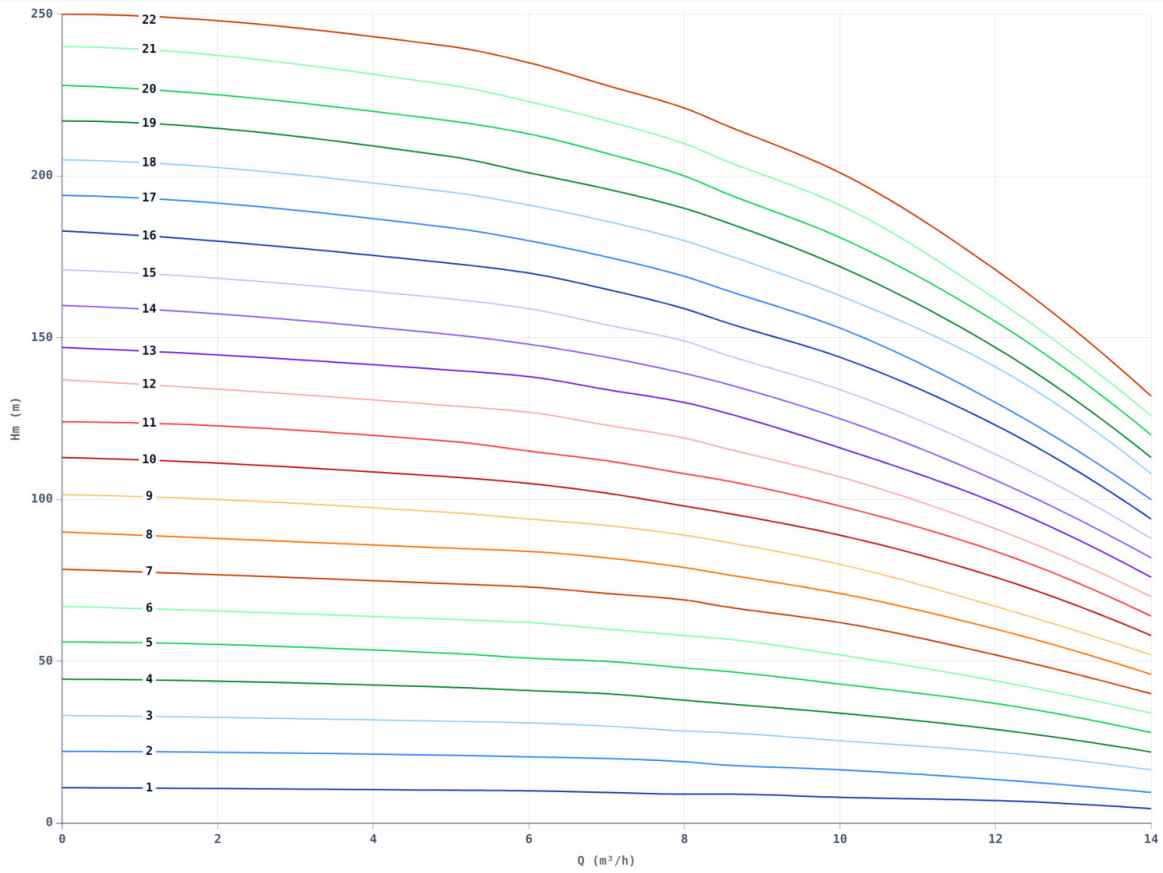
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

Modelo	kW	CV	A (1~230V)	Ef. Energ.	m³/h	0	5	6	7	8	8.5	10	12	14
						Hm (m)								
CDMF 10-1	0,75	1,00	4,20	IE2		11,0	10,2	10,0	9,5	9,0	9,0	8,0	7,0	4,5
CDMF 10-2	0,75	1,00	4,20	IE2		22,2	21,0	20,5	20,0	19,0	18,0	16,5	13,5	9,5
CDMF 10-3	1,10	1,50	6,30	IE2		33,3	31,5	31,0	30,0	28,5	28,0	25,5	22,0	16,5
CDMF 10-4	1,50	2,00	8,20	IE2		44,5	42,0	41,0	40,0	38,0	37,0	34,0	29,0	22,0
CDMF 10-5	2,20	3,00	12,10	IE2		56,0	52,5	51,0	50,0	48,0	47,0	43,0	37,0	28,0
CDMF 10-6	2,20	3,00	12,10	IE2		67,0	63,0	62,0	60,0	58,0	57,0	52,0	44,0	34,0

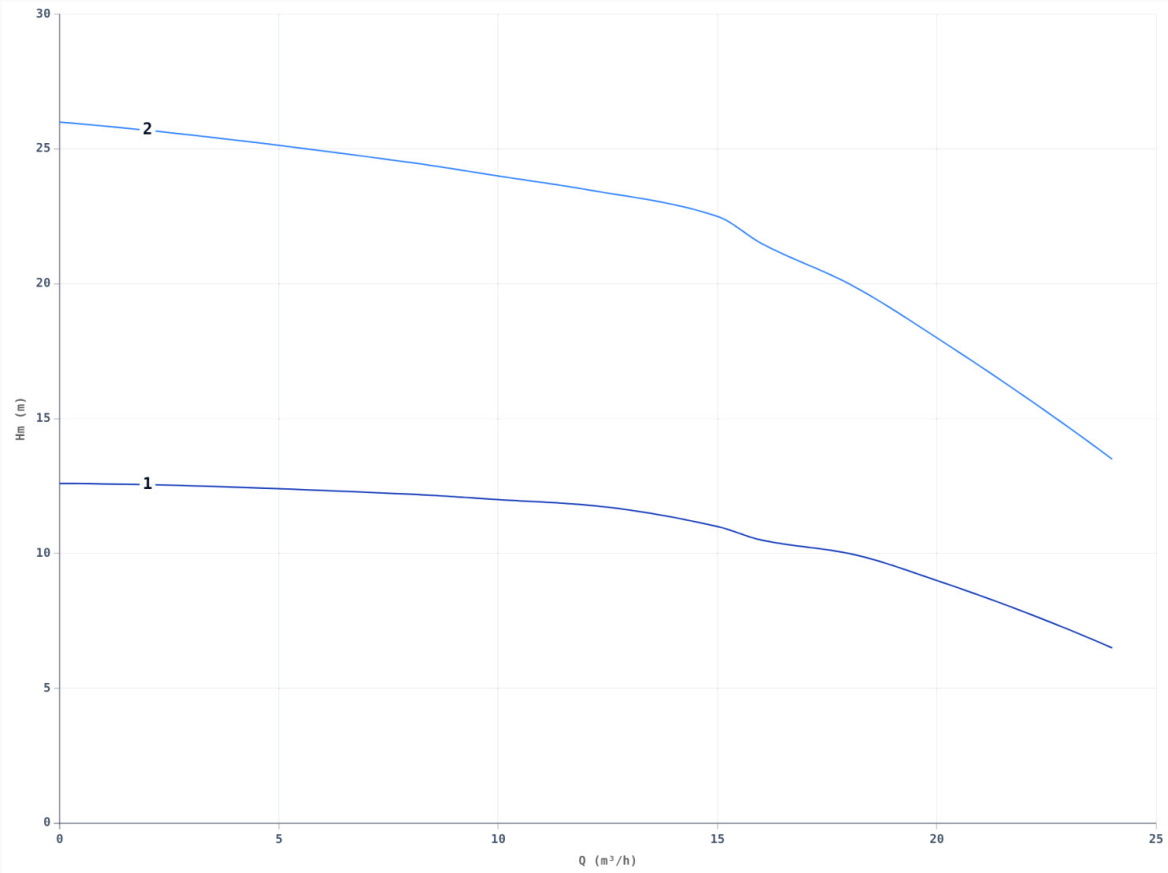
## CURVA DE PERFORMANCE (Q - Hm)



Curvas de caudal (Q) vs. altura manométrica (Hm)

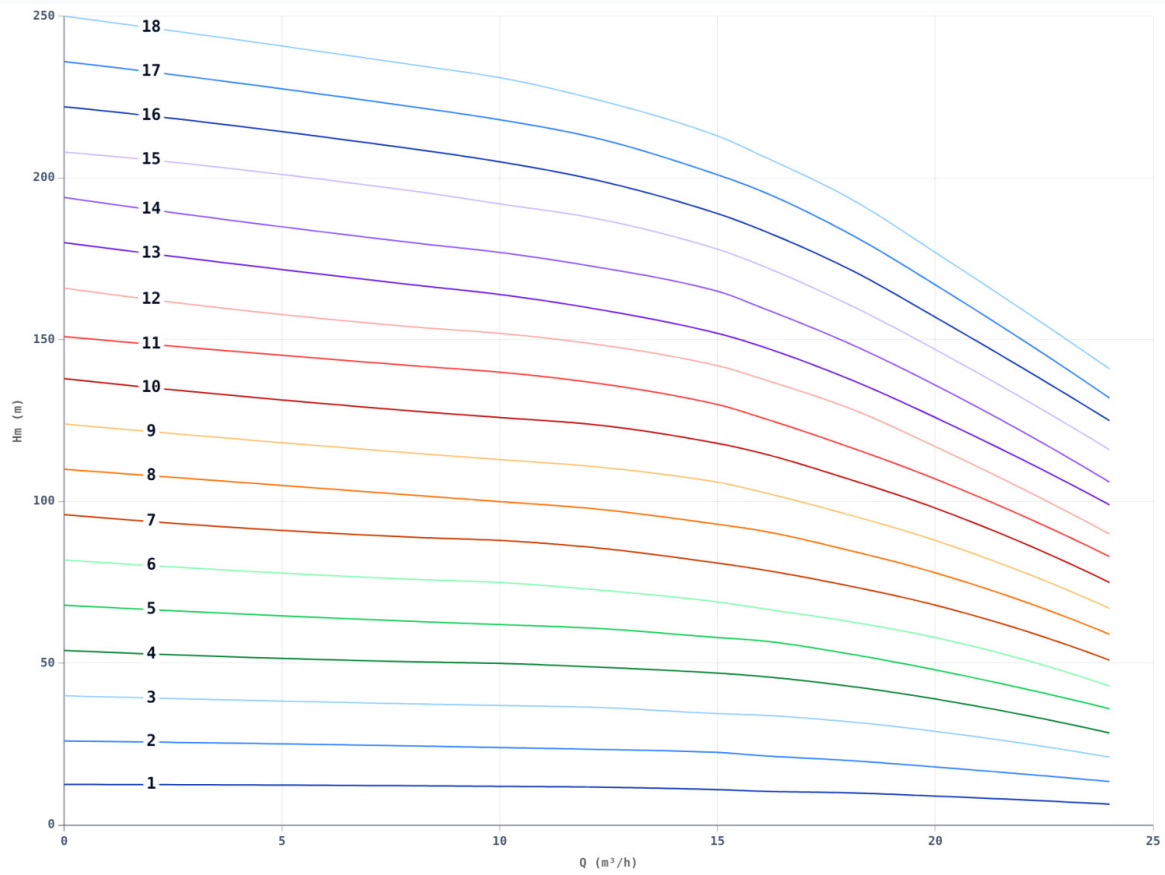
Modelo	kW	CV	A (3-400V)	Ef. Energ.	m³/h	0	5	6	7	8	8.5	10	12	14
						Hm (m)								
CDMF 10-1	0,75	1,00	1,70	IE3		11,0	10,2	10,0	9,5	9,0	9,0	8,0	7,0	4,5
CDMF 10-2	0,75	1,00	1,70	IE3		22,2	21,0	20,5	20,0	19,0	18,0	16,5	13,5	9,5
CDMF 10-3	1,10	1,50	2,40	IE3		33,3	31,5	31,0	30,0	28,5	28,0	25,5	22,0	16,5
CDMF 10-4	1,50	2,00	3,20	IE3		44,5	42,0	41,0	40,0	38,0	37,0	34,0	29,0	22,0
CDMF 10-5	2,20	3,00	4,60	IE3		56,0	52,5	51,0	50,0	48,0	47,0	43,0	37,0	28,0
CDMF 10-6	2,20	3,00	4,60	IE3		67,0	63,0	62,0	60,0	58,0	57,0	52,0	44,0	34,0
CDMF 10-7	3,00	4,00	6,00	IE3		78,5	74,0	73,0	71,0	69,0	67,0	62,0	52,0	40,0
CDMF 10-8	3,00	4,00	6,00	IE3		90,0	85,0	84,0	82,0	79,0	77,0	71,0	60,0	46,0
CDMF 10-9	4,00	5,50	7,80	IE3		101,5	96,0	94,0	92,0	89,0	87,0	80,0	67,0	52,0
CDMF 10-10	4,00	5,50	7,80	IE3		113,0	107,0	105,0	102,0	98,0	96,0	89,0	76,0	58,0
CDMF 10-11	4,00	5,50	7,80	IE3		124,0	118,0	115,0	112,0	108,0	106,0	98,0	84,0	64,0
CDMF 10-12	4,50	6,00	8,80	IE3		137,0	129,0	127,0	123,0	119,0	116,0	107,0	91,0	70,0
CDMF 10-13	5,50	7,50	10,60	IE3		147,0	140,0	138,0	134,0	130,0	127,0	116,0	99,0	76,0
CDMF 10-14	5,50	7,50	10,60	IE3		160,0	151,0	148,0	144,0	139,0	136,0	125,0	106,0	82,0
CDMF 10-15	5,50	7,50	10,60	IE3		171,0	162,0	159,0	154,0	149,0	145,0	134,0	114,0	88,0
CDMF 10-16	7,50	10,00	14,40	IE3		183,0	173,0	170,0	165,0	159,0	155,0	144,0	123,0	94,0
CDMF 10-17	7,50	10,00	14,40	IE3		194,0	184,0	180,0	175,0	169,0	165,0	153,0	130,0	100,0
CDMF 10-18	7,50	10,00	14,40	IE3		205,0	195,0	191,0	186,0	180,0	176,0	163,0	141,0	108,0
CDMF 10-19	7,50	10,00	14,40	IE3		217,0	206,0	201,0	196,0	190,0	186,0	172,0	147,0	113,0
CDMF 10-20	7,50	10,00	14,40	IE3		228,0	217,0	213,0	207,0	200,0	195,0	181,0	155,0	120,0
CDMF 10-21	7,50	10,00	14,40	IE3		240,0	228,0	223,0	217,0	210,0	205,0	191,0	162,0	126,0
CDMF 10-22	11,00	15,00	20,60	IE3		250,0	240,0	235,0	228,0	221,0	216,0	201,0	171,0	132,0

## CURVA DE PERFORMANCE (Q - HM)



Modelo	kW	CV	A (1~230V)	Ef. Energ.	m³/h									
					0	8	10	12	15	16	18	20	24	
					Hm (m)									
CDMF 15-1	1,10	1,50	6,30	IE2	12,6	12,2	12,0	11,8	11,0	10,5	10,0	9,0	6,5	
CDMF 15-2	2,20	3,00	12,10	IE2	26,0	24,5	24,0	23,5	22,5	21,5	20,0	18,0	13,5	

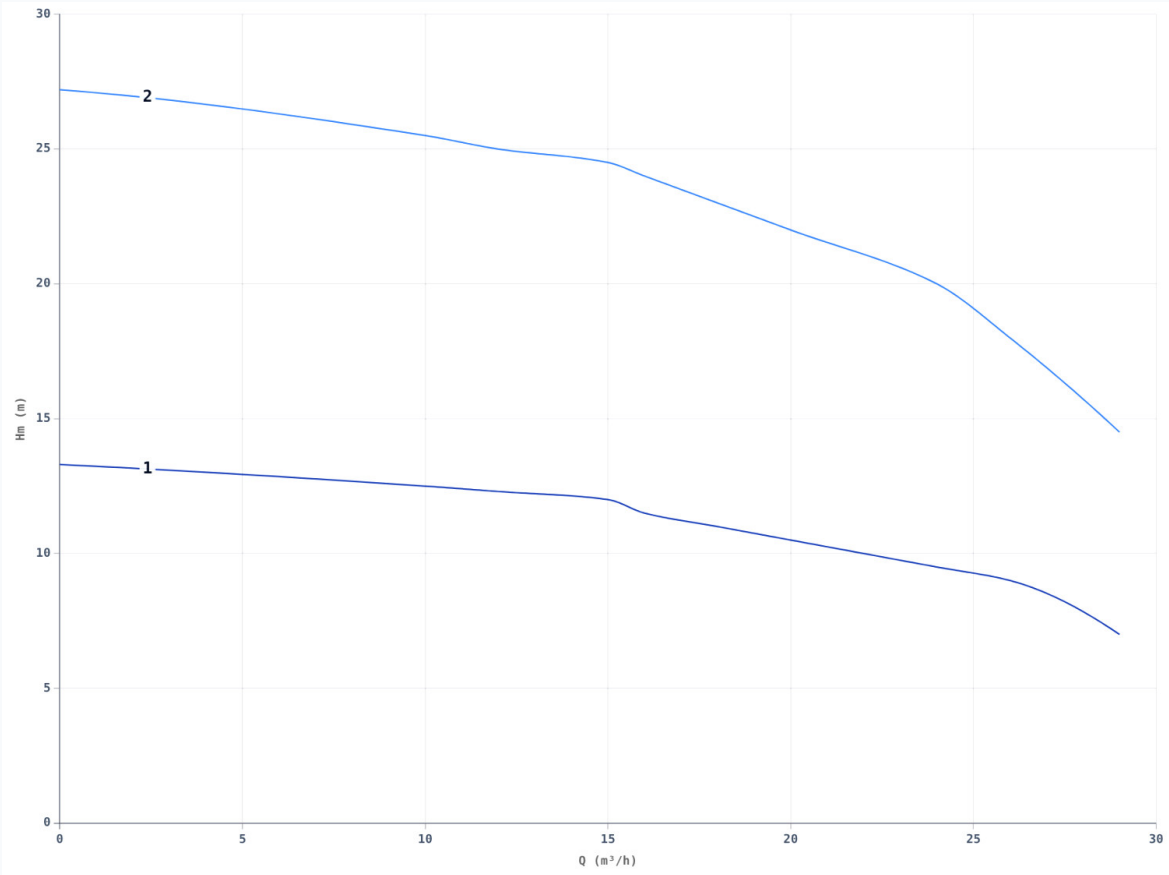
## CURVA DE PERFORMANCE (Q - Hm)



Curvas de caudal (Q) vs. altura manométrica (Hm)

Modelo	kW	CV	A (3~400V)	Ef. Energ.	m³/h	Hm (m)									
						0	8	10	12	15	16	18	20	24	
CDMF 15-1	1,10	1,50	2,40	IE3		12,6	12,2	12,0	11,8	11,0	10,5	10,0	9,0	6,5	
CDMF 15-2	2,20	3,00	4,60	IE3		26,0	24,5	24,0	23,5	22,5	21,5	20,0	18,0	13,5	
CDMF 15-3	3,00	4,00	6,00	IE3		40,0	37,5	37,0	36,5	34,5	34,0	32,0	29,0	21,0	
CDMF 15-4	4,00	5,50	7,80	IE3		54,0	50,5	50,0	49,0	47,0	46,0	43,0	39,0	28,5	
CDMF 15-5	4,00	5,50	7,80	IE3		68,0	63,0	62,0	61,0	58,0	57,0	53,0	48,0	36,0	
CDMF 15-6	5,50	7,50	10,60	IE3		82,0	76,0	75,0	73,0	69,0	67,0	63,0	58,0	43,0	
CDMF 15-7	5,50	7,50	10,60	IE3		96,0	89,0	88,0	86,0	81,0	79,0	74,0	68,0	51,0	
CDMF 15-8	7,50	10,00	14,40	IE3		110,0	102,0	100,0	98,0	93,0	91,0	85,0	78,0	59,0	
CDMF 15-9	7,50	10,00	14,40	IE3		124,0	115,0	113,0	111,0	106,0	103,0	96,0	88,0	67,0	
CDMF 15-10	11,00	15,00	20,60	IE3		138,0	128,0	126,0	124,0	118,0	115,0	107,0	98,0	75,0	
CDMF 15-11	11,00	15,00	20,60	IE3		151,0	142,0	140,0	137,0	130,0	126,0	117,0	107,0	83,0	
CDMF 15-12	11,00	15,00	20,60	IE3		166,0	154,0	152,0	149,0	142,0	138,0	129,0	117,0	90,0	
CDMF 15-13	11,00	15,00	20,60	IE3		180,0	167,0	164,0	160,0	152,0	148,0	138,0	126,0	99,0	
CDMF 15-14	11,00	15,00	20,60	IE3		194,0	180,0	177,0	173,0	165,0	160,0	149,0	136,0	106,0	
CDMF 15-15	15,00	20,00	27,90	IE3		208,0	196,0	192,0	188,0	178,0	173,0	161,0	147,0	116,0	
CDMF 15-16	15,00	20,00	27,90	IE3		222,0	209,0	205,0	200,0	189,0	184,0	172,0	157,0	125,0	
CDMF 15-17	15,00	20,00	27,90	IE3		236,0	222,0	218,0	213,0	201,0	196,0	183,0	167,0	132,0	
CDMF 15-18	15,00	20,00	27,90	IE3		250,0	235,0	231,0	225,0	213,0	207,0	194,0	177,0	141,0	

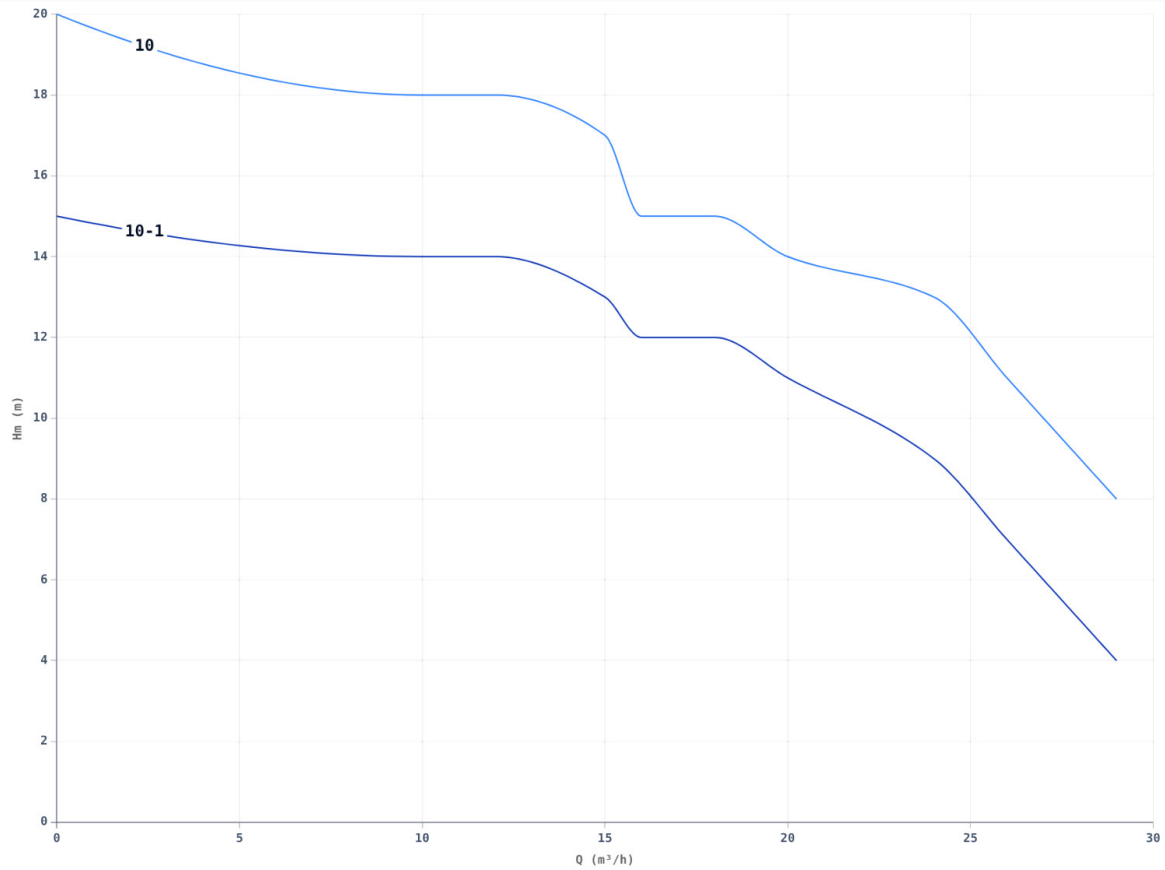
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

Modelo	kW	CV	A (1~230V)	Ef. Energ.	m³/h	0	10	12	15	16	18	20	24	26	29
					Hm (m)										
CDMF 20-1	1,10	1,50	6,30	IE2		13,3	12,5	12,3	12,0	11,5	11,0	10,5	9,5	9,0	7,0
CDMF 20-2	2,20	3,00	12,10	IE2		27,2	25,5	25,0	24,5	24,0	23,0	22,0	20,0	18,0	14,5

## CURVA DE PERFORMANCE (Q - Hm)



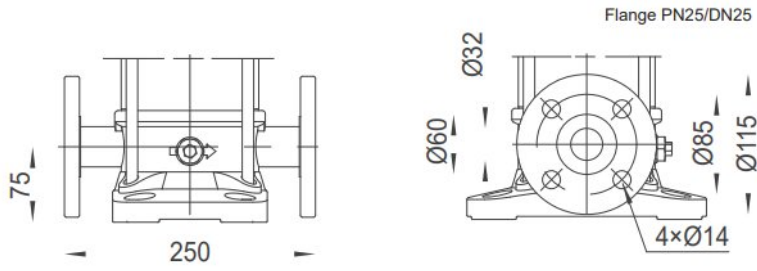
Curvas de caudal (Q) vs. altura manométrica (Hm)

Modelo	kW	CV	A (1~230V)	Ef. Energ.	m³/h	0	16	20	24	28	32	36	40
					Hm (m)								
CDMF 32-10-1	1,10	1,50	8,20	IE2		15,0	14,0	13,0	12,0	11,0	9,0	7,0	4,0
CDMF 32-10	2,20	3,00	12,10	IE2		20,0	18,0	17,0	15,0	14,0	13,0	11,0	8,0

## LISTA DE MATERIAIS

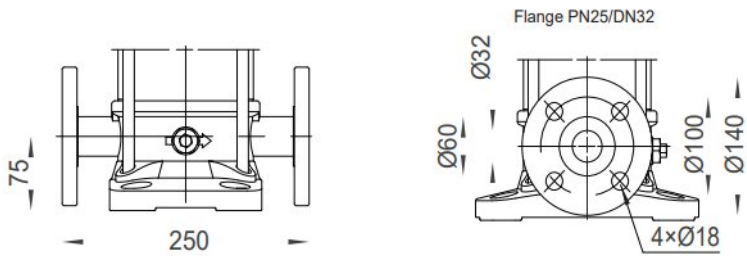
Pos.	Descrição	Material (Standard)
1	Motor	-
2	Suporte do motor	Ferro fundido
3	Base do selo	Aço inoxidável (AISI 304/316)
4	Selo mecânico	Tipo cartucho
5	Descarga	Aço inoxidável (AISI 304/316)
6	Tirante	Aço inoxidável (AISI 304/316)
7	Difusor	Aço inoxidável (AISI 304/316)
8	Impulsor	Aço inoxidável (AISI 304/316)
9	Veio	Aço inoxidável (AISI 304/316)
10	Acoplamento	Aço carbono
11	Entrada	Aço inoxidável (AISI 304/316)
12	Placa de base	Ferro fundido

## DIMENSÕES FLANGE CDMF 3



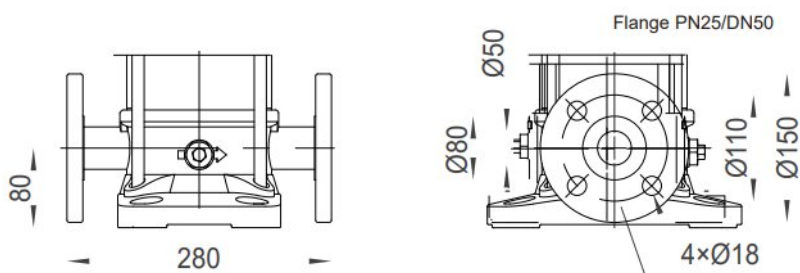
**CDMF 3**

## DIMENSÕES FLANGE CDMF 5



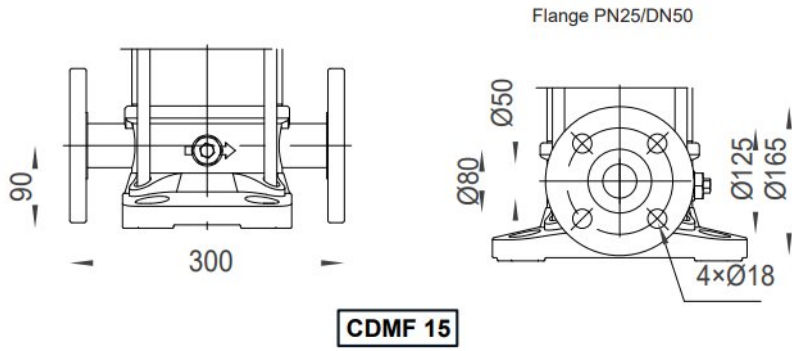
**CDMF 5**

## DIMENSÕES FLANGE CDMF 10



**CDMF 10**

## DIMENSÕES FLANGE CDMF 15



## DIMENSÕES FLANGE CDMF 20

