Bitzer Compressores Ltda **jul/2004**

Engenharia de Aplicação

Índice

Comparativos por Deslocamento Volumétrico:

Bitzer x Bock 1
Bitzer x Copeland DWM 2
Bitzer x Copeland 3

Comparativos por Performance Frigorífica:

Resfriados
Bitzer x Bock 4
Bitzer x Copeland DWM 5
Bitzer x Copeland 6
Bitzer x Copeland Scroll 7

Congelados
Bitzer x Bock 8
Bitzer x Copeland DWM 9
Bitzer x Copeland 10
Bitzer x Copeland Scroll 11

AC
Bitzer x Copeland Scroll 12

Comparativo de Unidades Condensadoras 13

Diversos

Abertos x Concorrentes

Bitzer x Mycom x FNC 14

Bitzer x Mycom x FNC 15

Bitzer x Mycom x FNC 16

Abertos para Amônia Simples-Estágio x Concorrentes 17

Abertos para Amônia Duplo-Estágio x Concorrentes 18

Alumínio x Concorrentes

Bitzer x Bock x Thermoking 19

Bitzer x Carrier x Denso x Hipascold x Seltec 20

Bitzer 1ª a 3ª Geração 21

Bitzer x Dorin 22

Bitzer x Frascold 23

Bitzer x Prestcold 24

Bitzer x Royce 25

Parafuso Aberto x Concorrentes 26

Bitzer x Bock
Deslocamento Volumétrico

Condições: 60 Hz
Fonte: Bitzer Software 4.0.1 e VAP 7.1D

BITZER		BOCK	
Modelo	Deslocamento Volumétrico (m³/h)	Modelo	Deslocamento Volumétrico (m³/h)
2HC-1.2	7.9	-	-
2HC-2.2	7.9	-	-
2GC-2.2	9.2	-	-
2FC-2.2	11.5	-	-
2FC-3.2	11.5	-	-
2EC-2.2	13.7	-	-
2EC-3.2	13.7	-	-
2DC-2.2	16.1	HA 3/155-4	16.3
2DC-3.2	16.1	HG 3/155-4S HG 3/155-4	16.3
2CC-3.2	19.6	HA 3/190-4	20.0
2CC-4.2	19.6	HG 3/190-4S HG 3/190-4	20.0
4FC-3.2	21.8	HA34P/215-4	22.6
4FC-5.2	21.8	HG34P/215-4 HG34P/215-4S	22.6
		HA 3/235-4	24.4
		HG 3/235-4S HG 3/235-4	24.4
4EC-4.2	27.4	HA34P/255-4	26.5
4EC-6.2	27.4	HG34P/255-4 HG34P/255-4S	26.5
4EC-4.2	27.4	HA 3/275-4	28.9
4EC-6.2	27.4	HG 3/275-4S HG 3/275-4	28.9
4DC-5.2	32.4	HA 4/310-4	32.5
4DC-7.2	32.4	HG 4/310-4S HG 4/310-4	32.5
4DC-5.2	32.4	HA34P/315-4	32.8
4DC-7.2	32.4	HG34P/315-4 HG34P/315-4S	32.8
4Z-5.2	33.9	HA 3/325-4	34.0
4Z-8.2	33.9	HG 3/325-4S HG 3/325-4	34.0
4CC-6.2	39.2	HA34P/380-4	39.7

4V-10.2	39.9	HG34P/380-4 HG34P/380-4S	39.7
4V-6.2	39.9	HA 4/385-4	40.2
4V-10.2	39.9	HG 4/385-4S HG 4/385-4	40.2
4T-8.2	47.5	HA 4/465-4	48.6
4T-12.2	47.5	HG 4/465-4S HG 4/465-4	48.6
4P-10.2	56.9	HA 4/555-4	57.8
4P-15.2	56.9	HG 4/555-4S HG 4/555-4	57.8
4N-12.2	67.7	HA 4/650-4	67.9
4N-20.2	67.7	HG 4/650-4S HG 4/650-4	67.9
4J-13.2	76.6	HA 5/725-4	75.5
4J-22.2	76.6	HG 5/725-4S HG 5/725-4	75.5
4H-15.2	88.8	HA 5/830-4	86.6
4H-25.2	88.8	HG 5/830-4S HG 5/830-4	86.6
4G-20.2	102	HA 5/945-4	98.6
4G-30.2	102	HG 5/945-4S HG5/945-4	98.6
6J-22.2	115	HA 6/1080-4	112.4
6J-33.2	115	HG 6/1080-4S HG 6/1080-4	112.4
6H-25.5	133.4	HA 6/1240-4	129.1
6H-35.2	133.4	HG 6/1240-4S HG 6/1240-4	129.1
6G-30.2	153	HA 6/1410-4	146.9
6G-40.2	153	HG 6/1410-4S HG 6/1410-4	146.9
		HG 7/1620-4	168.7
		HG 7/1620-4S	168.7
6F-40.2	182.9	HG 7/1860-4	193.68
6F-50.2	182.9	HG 7/1860-4S	193.68

Bitzer x Copeland DWM
Deslocamento Volumétrico

Condições: 60 Hz
Fonte: Software Bitzer 4.0.2 e Copeland Selection 5.21

Bitzer		Copeland DWM Standard		Copeland DWM Discus	
Modelo	Deslocamento Volumétrico (m³/h)	Modelo	Deslocamento Volumétrico (m³/h)	Modelo	Deslocamento Volumétrico (m³/h)
		DKSJ-100	7.56		
2HC-1.2	7.9	DKSJ-10X	7.56		
2HC-2.2	7.9	DKSJ-150	7.56		
		DKSJ-15X	7.56		
2GC-2.2	9.2	DKL-150	8.88		
		DKL-15X	8.88		
		DKSL-200	10.92		
2FC-2.2	11.5	DKSL-20X	10.92		
2FC-3.2	11.5	DLE-201	11.88		
		DLE-20X	11.88		
2EC-2.2	13.7				
2EC-3.2	13.7				
		DLF-201	15.48		
		DLF-20X	15.48		
		DLF-301	15.48		
2DC-2.2	16.1	DLF-30X	15.48		
2DC-3.2	16.1	DLJ-201	17.40		
		DLJ-20X	17.40		
		DLJ-301	17.40		
		DLJ-30X	17.40		
2CC-3.2	19.6			D2DC-500	20.16
2CC-4.2	19.6			D2DC-50X	20.16
		DLL-301	21.84		
4FC-3.2	21.8	DLL-30X	21.84	D2DD-500	23.16
4FC-5.2	21.8	DLL-401	21.84	D2DD-50X	23.16
		DLL-40X	21.84		
		D2SA-450	26.88		
		D2SA-45X	26.88		
		D2SA-450 Air	26.88		
4EC-4.2	27.4	D2SA-45X Air	26.88	D2DL-400 DC	28.44
4EC-6.2	27.4	D2SA-55X	27.00	D2DL-750	28.44
		D2SA-550	27.00	D2DL-75X	28.44
		DLSG-401	27.00		
		DLSG-40X	27.00		
		DLHA-500	31.92		
		DLHA-50X	31.92		
		D2SC-550	32.16		
4DC-5.2	32.4	D2SC-55X	32.16		
4DC-7.2	32.4	DMRH-750	32.16		
		D2SC-550 Air	32.16		
		D2SC-55X Air	32.16		
		D2SC-650	32.28		
		D2SC-65X	32.28		
4Z-5.2	33.9			D2DB-500 DC	33.60
4Z-8.2	33.9			D2DB-750	33.60
				D2DB-75X	33.60

		D2SK-650	37.44		
		D2SK-65X	37.44	D3DA-500 DC	38.64
4CC-6.2	39.2	D9RA-750	38.52	D3DA-750	38.64
		D3SA-750	38.64	D3DA-75X	38.64
		D3SA-75X	38.64		
4V-6.2	39.9				
4V-10.2	39.9				
		D3SC-100X	45.60		
4T-8.2	47.5	D3SC-1000	45.60	D3DC-750 DC	45.60
4T-12.2	47.5	D3SC-750	45.60	D3DC-1000	45.60
		D9RC-1000	45.60	D3DC-100X	45.60
		D3SC-75X	45.60		
		D3SS-1500	59.88		
4P-10.2	56.9	D3SS-150X	59.88	D3DS-1000 DC	59.88
4P-15.2	56.9	D3SS-1000	59.88	D3DS-1500	59.88
		D3SS-100X	59.88	D3DS-150X	59.88
		D9RS-1500	59.88		
		D4SF-1000	67.20	D4DF-1000 DC	67.20
4N-12.2	67.7	D4SF-100X	67.20	D4DA-2000	67.20
4N-20.2	67.7	D4SA-2000	67.20	D4DA-200X	67.20
		D4SA-200X	67.20		
4J-13.2	76.6				
4J-22.2	76.6				
		D4SL-1500	84.96		
4H-15.2	88.8	D4SL-150X	84.96		
4H-25.2	88.8	D4SH-2500	84.96	D4DL-1500 DC	84.96
		D4SH-250X	84.96	D4DH-2500	84.96
				D4DH-250X	84.96
		D6SF-2000	100.80		
		D6SF-200X	100.80		
		D6SA-3000	100.80		
4G-20.2	102.0	D6SA-300X	100.80		
4G-30.2	102.0	D4ST-2000	101.64	D4DT-2200 DC	101.64
		D4ST-200X	101.64	D4DJ-3000	101.64
		D4SJ-3000	101.64	D4DJ-300X	101.64
		D4SJ-300X	101.64		
6J-22.2	115.0				
6J-33.2	115.0				
		D6SL-2500	127.20		
6H-25.2	133.4	D6SL-250X	127.20	D6DL-2700 DC	127.20
6H-35.2	133.4	D6SH-3500	127.20	D6DH-3500	127.20
		D6SH-350X	127.20	D6DH-350X	127.20
		D6ST-3200	152.40	D6DT-3000 DC	152.40
6G-30.2	153.0	D6ST-320X	152.40	D6DJ-4000	152.40
6G-40.2	153.0	D6SJ-4000	152.40	D6DJ-400X	152.40
		D6SJ-400X	152.40		
		D8SH-3700	181.20		
6F-40.2	182.9	D8SH-370X	181.20	D8DH-5000	181.20
6F-50.2	182.9	D8SH-5000	181.20	D8DH-500X	181.20
		D8SH-500X	181.20		
		D6SK-5000	182.16		
		D8SJ-4500	217.20	D8DJ-6000	217.20
		D8SJ-450X	217.20		
		D8SJ-6000	217.20		
		D8SJ-600X	217.20		
		D8SK-7000	252.00		
		D8SK-700X	252.00		

Bitzer x Copeland
Deslocamento Volumétrico

Condições: 60Hz
Fonte: Softaware Bitzer 4.0.2 e www.copeland-corp/com

Bitzer		**Copeland Standard**				**Copeland Discus**	
		Resfriamento a ar		**Resfriamento pelo gás**			
Modelo	Deslocamento Volumétrico (m^3/h)	Modelo	Deslocamento Volumétrico (m^3/h)	Modelo	Deslocamento Volumétrico (m^3/h)	Modelo	Deslocamento Volumétrico (m^3/h)
2HC-1.2	7.9	KAK*-0200	7.2				
2HC-2.2	7.9						
2GC-2.2	9.2			ERC*-0200	9.6		
2FC-2.2	11.5	EAD* 0200	11.0				
2FC-3.2	11.5	EAV*-0210	12.5				
2EC-2.2	13.7			ERF*-0311	13.1		
2EC-3.2	13.7						
2DC-2.2	16.1			3RA*-0310	17.8		
2DC-3.2	16.1						
2CC-3.2	19.6						
2CC-4.2	19.6						
4FC-3.2	21.8	LAH*-0310	19.7	NRB2-0400	19.7		
4FC-5.2	21.8			NRA2-0500	23.1		
						2DCJ-0500	24.4
4EC-4.2	27.4			NRM1-0500	27.5		
4EC-6.2	27.4					2DD3-0500	28.0
4DC-5.2	32.4			MRH4-0760	32.2	2DF3-0300	30.7
4DC-7.2	32.4						
4Z-5.2	33.9					2DL3-0400	34.2
4Z-8.2	33.9					2DL3-0750	34.2
4CC-6.2	39.2			9RJ1-0765	38.8	2DA3-0610	38.5
						2DAJ-0750	38.5
4V-6.2	39.9					2DB3-0600	40.4
4V-10.2	39.9						
4T-8.2	47.5			9RC1-1015	45.7	3DA3-0710	46.6

4T-12.2	47.5					3DA3-0750	46.6
4P-10.2	56.9					3DB3-0750	54.8
4P-15.2	56.9			9RS1-1505	60.2	3DB3-0910	54.8
						3DB3-1000	54.8
4N-12.2	67.7					3DF3-1200	65.0
4N-20.2	67.7						
						3DS3-1210	72.2
4J-13.2	76.6					3DS3-1500	72.2
4J-22.2	76.6					4DAJ-2000	80.4
						4DA3-1000	81.0
4H-15.2	88.8			4RH1-2500	85.4	4DB3-2010	93.7
4H-25.2	88.8						
4G-20.2	102.0			4RA3-2000	101.3	4DH3-2500	102.5
4G-30.2	102.0			4RJ2-3000	102.0	4DL3-1500	102.5
6J-22.2	115.0					4DT3-2200	122.4
6J-33.2	115.0					4DT3-2510	122.4
						4DJ3-3000	122.4
6H-25.2	133.4			6RH1-3500	128.1		
6H-35.2	133.4						
6G-30.2	153.0			6RJ1-4000	153.0	6DL3-2700	153.7
6G-40.2	153.0						
6F-40.2	182.9					6DG3-3500	168.4
6F-50.2	182.9					6DT3-3000	183.6
						6DJ3-4000	183.6

Bitzer x Bock
Performance Frigorífica - Resfriados

Condições Resfriados: -10º/45º ; R22; Sub-resfriamento = 0 K; Temp. do gás de sucção = 20º C ; 60Hz
Fonte: Software Bitzer 4.0.2 e VAP 7.1D

BITZER				BOCK			
Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP	Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP
2HC-2.2	3.54	1.70	2.08				
2GC-2.2	4.19	2.00	2.10				
2FC-3.2	5.09	2.44	2.09				
2EC-3.2	5.97	2.75	2.17	HG22P/125-4 HG22P/125-4S	5.64	2.67	2.12
2DC-3.2	7.15	3.15	2.27	HG22P/160-4 HG22P/160-4S	6.90	3.20	2.16
2CC-4.2	8.86	3.86	2.30	HG 3/155-4S HG 3/155-4	8.01	3.32	2.41
				HG22P/190-4 HG22P/190-4S	8.43	3.98	2.12
4FC-5.2	10.08	4.33	2.33	HG34P/215-4 HG34P/215-4S	9.43	4.40	2.14
				HG 3/190-4S HG 3/190-4	9.88	4.10	2.41
4EC-6.2	12.46	5.36	2.33	HG34P/255-4 HG34P/255-4S	11.40	5.28	2.16
				HG 3/235-4S HG 3/235-4	11.96	4.97	2.41
4DC-7.2	15.18	6.47	2.35	HG34P/315-4 HG34P/315-4S	13.94	6.33	2.20
				HG 3/275-4S HG 3/275-4	14.23	5.91	2.41
4Z-8.2	15.72	6.75	2.33	HG 3/325-4S HG 3/325-4	16.70	6.94	2.41
4CC-6.2	18.37	7.88	2.33	HG 4/310-4S HG 4/310-4	16.86	6.33	2.66
				HG34P/380-4 HG34P/380-4S	17.20	7.81	2.20
4V-10.2	18.50	7.84	2.36				
4T-12.2	22.60	9.44	2.40	HG 4/385-4S HG 4/385-4	20.81	7.82	2.66
4P-15.2	26.70	11.41	2.34	HG 4/465-4S HG 4/465-4	25.18	9.46	2.66

4N-20.2	32.70	13.72	2.38	HG 4/555-4S HG 4/555-4	29.97	11.26	2.66
4J-22.2	36.90	14.58	2.53	HG 4/650-4S HG 4/650-4	35.17	13.21	2.66
				HG 5/725-4S HG 5/725-4	39.15	14.70	2.66
4H-25.2	42.50	16.90	2.52	HG 5/830-4S HG 5/830-4	44.94	16.88	2.66
4G-30.2	48.80	19.93	2.45	HG 5/945-4S HG5/945-4	51.13	19.21	2.66
6J-33.2	55.30	21.90	2.53	HG 6/1080-4S HG 6/1080-4	57.79	23.25	2.49
6H-35.2	63.80	25.40	2.52	HG 6/1240-4S HG 6/1240-4	66.34	26.69	2.49
6G-40.2	73.20	29.90	2.45	HG 6/1410-4S HG 6/1410-4	75.48	30.37	2.49
6F-50.2	87.00	37.30	2.33	HG 7/1620-4 HG 7/1620-4S	80.88	35.77	2.26
				HG 7/1860-4 HG 7/1860-4S	92.85	41.07	2.26

Bitzer x Copeland DWM
Performance Frigorífica - Resfriados

Condições Resfriados: -10º/45º ; R22; Sub-resfriamento = 0 K; Temp. do gás de sucção = 20º C ; 60Hz
Fonte: Software Bitzer 4.0.2 e Copeland Selection Software 5.21

BITZER				**Copeland DWM Standard**				**Copeland DWM Discus**			
Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP
				DKM-50	2.06	0.99	2.07				
				DKM-5X	2.06	0.99	2.07				
				DKM-75	2.05	0.98	2.10				
				DKM-7X	2.05	0.98	2.10				
				DKM-100	2.15	1.03	2.09				
				DKJ-75	2.76	1.31	2.10				
				DKJ-7X	2.76	1.31	2.10				
				DKJ-100	2.82	1.28	2.20				
				DKJ-10X	2.82	1.28	2.20				
				DKJ-150	2.83	1.30	2.18				
				DKJ-15X	2.83	1.30	2.18				
2HC-2.2	3.54	1.70	2.08	DKSJ-100	3.55	1.67	2.11				
				DKSJ-10X	3.55	1.67	2.11				
				DKSJ-150	3.60	1.67	2.16				
				DKSJ-15X	3.60	1.67	2.16				
2GC-2.2	4.19	2.00	2.10	DKL-150	4.10	1.93	2.12				
				DKL-15X	4.10	1.93	2.12				
2FC-3.2	5.09	2.44	2.09	DKSL-200	5.15	2.46	2.10				
				DKSL-20X	5.45	2.85	1.91				
				DLE-201	5.25	2.49	2.11				
				DLE-20X	5.25	2.49	2.11				
2EC-3.2	5.97	2.75	2.17								
2DC-3.2	7.15	3.15	2.27	DLF-201	7.35	3.37	2.18				
				DLF-20X	7.35	3.37	2.18				
				DLF-301	7.40	3.31	2.23				
				DLF-30X	7.40	3.31	2.23				
				DLJ-201	-	-	-				
				DLJ-20X	-	-	-				
				DLJ-301	8.50	3.77	2.25				
				DLJ-30X	8.50	3.77	2.25				
2CC-4.2	8.86	3.86	2.30					D2DC-500	9.10	3.64	2.49
								D2DC-50X	9.10	3.64	2.49
4FC-5.2	10.08	4.67	2.33	DLL-301	-	-	-				
				DLL-30X	-	-	-	D2DD-500	10.70	4.25	2.51
				DLL-401	-	-	-	D2DD-50X	-	-	-
				DLL-40X	-	-	-				

4EC-6.2	12.46	5.36	2.33	D2SA-450	11.90	5.75	2.07				
				D2SA-45X	11.90	5.75	2.07				
				D2SA-450 Air	-	-	-				
				D2SA-45X Air	-	-	-	D2DL-400 DC	14.25	5.30	2.69
				D2SA-55X	12.00	5.65	2.11	D2DL-750	13.45	5.30	2.53
				D2SA-550	12.00	5.65	2.11	D2DL-75X	13.45	5.30	2.53
4DC-7.2	15.18	6.47	2.35	DLSG-401	-	-	-				
				DLSG-40X	-	-	-				
				D2SC-550	15.00	7.00	2.14				
				D2SC-55X	15.00	7.00	2.14				
				DMRH-750	14.10	6.40	2.20				
				D2SC-550 Air	-	-	-				
				D2SC-55X Air	-	-	-				
4Z-8.2	15.72	6.75	2.33	D2SC-650	15.60	7.90	1.98				
				D2SC-65X	15.60	7.90	1.98				
				DLHA-500	15.50	7.30	2.12	D2DB-500 DC	16.30	6.65	2.45
				DLHA-50X	15.50	7.30	2.12	D2DB-750	16.50	6.50	2.55
				D3SA-750	16.90	7.70	2.20	D2DB-75X	16.50	6.50	2.55
				D3SA-75X	16.90	7.70	2.20				
4CC-6.2	18.37	7.88	2.33					D3DA-500 DC	-	-	-
				D2SK-650	17.80	8.40	2.11	D3DA-750	19.00	7.45	2.55
				D2SK-65X	17.80	8.40	2.11	D3DA-75X	19.00	7.45	2.55
				D9RA-750	17.10	7.25	2.36				
4V-10.2	18.50	7.84	2.36								
4T-12.2	22.60	9.41	2.40	D3SC-100X	20.50	9.40	2.18				
				D3SC-1000	20.50	9.40	2.18	D3DC-750 DC	-	-	-
				D3SC-750	21.10	9.35	2.26	D3DC-1000	22.70	8.80	2.57
				D9RC-1000	19.50	8.50	2.30	D3DC-100X	22.70	8.80	2.57
				D3SC-75X	21.10	9.35	2.26				
4P-15.2	26.70	11.41	2.34	D3SS-1500	28.30	13.00	2.18				
				D3SS-150X	28.30	13.00	2.18	D3DS-1000 DC	-	-	-
				D3SS-1000	28.20	13.30	2.12	D3DS-1500	30.50	12.00	2.53
				D3SS-100X	28.20	13.30	2.12	D3DS-150X	30.50	12.00	2.53
				D9RS-1500	26.30	11.20	2.35				
4N-20.2	32.70	13.72	2.38	D4SF-1000	-	-	-	D4DF-1000 DC	-	-	-
				D4SF-100X	-	-	-	D4DA-2000	34.50	13.20	2.62
				D4SA-2000	33.50	13.50	2.46	D4DA-200X	34.50	13.20	2.62
				D4SA-200X	33.50	13.50	2.46				
4J-22.2	36.90	14.58	2.53								
4H-25.2	42.50	16.90	2.52	D4SL-1500	-	-	-				
				D4SL-150X	-	-	-				
				D4SH-2500	41.00	17.20	2.40	D4DL-1500 DC			
				D4SH-250X	41.00	17.20	2.40	D4DH-2500	44.00	17.30	2.54
								D4DH-250X	44.00	17.30	2.54
				D6SF-2000	-	-	-				
				D6SF-200X	-	-	-				

4G-30.2	48.80	19.93	2.45	D6SA-3000	46.50	20.50	2.27				
				D6SA-300X	46.50	20.50	2.27				
				D4ST-2000	-	-	-	D4DT-2200 DC	-	-	-
				D4ST-200X	-	-	-	D4DJ-3000	51.50	21.00	2.45
				D4SJ-3000	48.00	20.30	2.35	D4DJ-300X	51.50	21.00	2.45
				D4SJ-300X	48.00	20.30	2.35				
6J-33.2	55.30	21.90	2.53								
6H-35.2	63.80	25.40	2.52	D6SL-2500	-	-	-				
				D6SL-250X	-	-	-	D6DL-2700 DC	-	-	-
				D6SH-3500	59.50	26.50	2.25	D6DH-3500	65.50	26.20	2.50
				D6SH-350X	59.50	26.50	2.25	D6DH-350X	65.50	26.20	2.50
				D6ST-3200	-	-	-	D6DT-3000 DC	-	-	-
6G-40.2	73.20	29.90	2.45	D6ST-320X	-	-	-	D6DJ-4000	76.00	31.60	2.41
				D6SJ-4000	69.50	31.00	2.24	D6DJ-400X	76.00	31.60	2.41
				D6SJ-400X	69.50	31.00	2.24				
				D8SH-3700	-	-	-				
				D8SH-370X	-	-	-				
6F-50.2	87.00	37.30	2.33	D8SH-5000	85.00	37.10	2.29	D8DH-5000	88.00	36.90	2.38
				D8SH-500X	85.00	37.10	2.29	D8DH-500X	88.00	36.90	2.38
				D6SK-5000	84.00	35.70	2.36				
				D8SJ-4500	-	-	-	D8DJ-6000	105.00	44.20	2.38
				D8SJ-450X	-	-	-	D8DJ-600X	105.00	44.20	2.38
				D8SJ-6000	101.50	44.10	2.30				
				D8SJ-600X	101.50	44.10	2.30				
				D8SK-7000	-	-	-				
				D8SK-700X	-	-	-				

Bitzer x Copeland
Performance Frigorífica - Resfriados

Condições Resfriados: -10º/45º ; R22; Sub-resfriamento = 0K; Temp. do gás de sucção = 20º C ; 60Hz
Fonte: Software Bitzer 4.0.2 e Copeland Calculator 1.0.25

Bitzer				Copeland Standard								Copeland Discus			
				Resfriamento a ar				Resfriamento pelo gás							
Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP
2HC-2.2	3.54	1.70	2.08	KAK*-0200	3.40	1.57	2.17								
2GC-2.2	4.19	2.00	2.10					ERC*-0200	3.84	1.83	2.10				
2FC-3.2	5.09	2.44	2.09	EAD* 0200	-	-	-								
				EAV*-0210	-	-	-								
2EC-3.2	5.97	2.75	2.17					ERF*-0311	5.86	2.75	2.13				
2DC-3.2	7.15	3.15	2.27					3RA*-0310	6.95	3.49	1.99				
								NRB2-0400	7.80	3.76	2.07				
2CC-4.2	8.86	3.86	2.30									2DCJ-0500	9.29	3.67	2.53
4FC-5.2	10.08	4.33	2.33	LAH*-0310	-	-	-	NRA2-0500	9.35	4.82	1.94	2DD3-0500	10.94	4.27	2.56
												2DF3-0300	-	-	-
4EC-6.2	12.46	5.36	2.33					NRM1-0500	11.64	5.60	2.08	2DL3-0400	-	-	-
												2DL3-0750	13.98	5.40	2.59
4DC-7.2	15.18	6.47	2.35					MRH4-0760	13.78	6.50	2.12				
4Z-8.2	15.72	6.75	2.33									2DAJ-0750	15.83	6.20	2.55
												2DA3-0610	16.18	-	-
4CC-6.2	18.37	7.88	2.33					9RJ1-0765	17.15	7.75	2.21	2DB3-0600	-	-	-
												3DA3-0710	19.49	7.70	2.53
4V-10.2	18.50	7.84	2.36					9RC1-1015	20.37	8.60	2.37	3DA3-0750	19.49	7.70	2.53
4T-12.2	22.60	9.44	2.40					9RS1-1505	24.47	11.70	2.09	3DB3-0750	-	-	-
												3DB3-0910	23.40	-	-
												3DB3-1000	23.44	9.15	2.56
4P-15.2	26.70	11.41	2.34									3DF3-1200	27.26	11.00	2.48

4N-20.2	32.70	13.72	2.38					4RA3-2000	30.48	13.90	2.19	3DS3-1210	30.50	-	-
												3DS3-1500	31.07	12.50	2.49
												4DAJ-2000	32.83	12.90	2.54
4J-22.2	36.90	14.58	2.53					4RH1-2500	37.81	17.20	2.20	4DB3-2200	39.28	15.40	2.55
												4DA3-1000	-	-	-
4H-25.2	42.50	16.90	2.52									4DB3-2010	-	-	-
												4DH3-2500	42.50	17.10	2.48
4G-30.2	48.80	19.93	2.45					4RJ2-3000	46.02	19.60	2.35	4DL3-1500	-	-	-
												4DT3-2200	-	-	-
												4DJ3-3000	50.12	20.30	2.47
												4DT3-2510	51.92	-	-
6J-33.2	55.30	21.90	2.53					6RH1-3500	59.21	26.30	2.25				
6H-35.2	63.80	25.40	2.52					6RJ1-4000	62.14	28.40	2.19	6DL3-2700	62.03	-	-
												6DG3-3500	66.83	28.00	2.29
6G-40.2	73.20	29.90	2.45									6DT3-3000	-	-	-
6F-50.2	87.00	37.30	2.33									6DJ3-4000	75.62	30.10	2.51

Bitzer x Copeland Scroll
Performance Frigorífica - Resfriados

Condições Resfriados: -10º/45º ; R22; Sub-resfriamento = 0 K; Temp. do gás de sucção = 20º C ; 60Hz
Fonte: Software Bitzer 4.0.2 e Copeland Performance Calculator 1.0.25

BITZER				Copeland			
Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP	Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP
2HC-2.2	3.54	1.70	2.08				
2GC-2.2	4.19	2.00	2.10	ZS15K4	4.01	1.90	2.11
				ZF06K4	4.16	1.97	2.11
2FC-3.2	5.09	2.44	2.09	ZS19K4	5.01	2.36	2.12
				ZF08K4	5.30	2.45	2.16
2EC-3.2	5.97	2.75	2.17	ZS21K4	5.63	2.34	2.41
				ZF09K4	5.83	2.61	2.23
2DC-3.2	7.15	3.15	2.27	ZS26K4	6.95	2.94	2.36
				ZF11K4	7.18	3.09	2.32
2CC-4.2	8.86	3.86	2.30	ZS30K4	8.03	3.33	2.41
				ZF13K4	8.41	3.63	2.32
4FC-5.2	10.08	4.33	2.33	ZS38K4	9.88	4.05	2.44
				ZF15K4	10.29	4.44	2.32
4EC-6.2	12.46	5.36	2.33	ZS45K4	11.87	4.97	2.39
				ZF18K4	12.28	5.30	2.32
4DC-7.2	15.18	6.47	2.35	ZS56K4	14.24	6.30	2.26
				ZF24K4	14.65	6.90	2.12
4Z-8.2	15.72	6.75	2.33				
4CC-6.2	18.37	7.88	2.33				
4V-10.2	18.50	7.84	2.36				
4T-12.2	22.60	9.44	2.40	ZS75K4	20.37	8.80	2.31
				ZF33K4	20.66	9.30	2.22
4P-15.2	26.70	11.41	2.34	ZS92K4	24.91	10.70	2.33
				ZF40K4	25.50	11.30	2.26
				ZS11M4	28.72	13.60	2.11
				ZF48K4	29.31	13.40	2.19
4N-20.2	32.70	13.72	2.38				
4J-22.2	36.90	14.58	2.53				
4H-25.2	42.50	16.90	2.52				
4G-30.2	48.80	19.93	2.45				
6J-33.2	55.30	21.90	2.53				
6H-35.2	63.80	25.40	2.52				
6G-40.2	73.20	29.90	2.45				
6F-50.2	87.00	37.30	2.33				

Bitzer x Bock
Performance Frigorífica - Congelados

Condições Congelados: -30º/45º ; R22; Sub-resfriamento = 0 K; Temp. do gás de sucção = 20º C ; 60Hz
Fonte: Software Bitzer 4.0.2 e VAP 7.1D

BITZER				BOCK			
Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP	Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP
2HC-1.2	1.36	1.03	1.31				
2GC-2.2	1.67	1.33	1.26	HA22P/125-4	1.68	1.40	1.20
2FC-2.2	2.06	1.52	1.36	HA22P/160-4	2.08	1.73	1.20
2EC-2.2	2.41	1.86	1.30				
2DC-2.2	2.73	2.14	1.28	HA22P/190-4	2.49	2.12	1.18
				HA34P/215-4	2.89	2.36	1.22
2CC-3.2	3.35	2.51	1.34	HA 3/155-4	2.95	2.30	1.28
				HA34P/255-4	3.40	2.78	1.22
4FC-3.2	3.75	2.87	1.31	HA 3/190-4	3.64	2.85	1.28
4EC-4.2	4.74	3.62	1.31	HA34P/315-4	4.20	3.43	1.22
				HA 3/235-4	4.41	3.44	1.28
4Z-5.2	5.15	4.04	1.28	HA34P/380-4	5.08	4.15	1.22
				HA 3/275-4	5.25	4.10	1.28
4DC-5.2	5.57	4.37	1.27				
4V-6.2	6.35	4.96	1.28	HA 3/325-4	6.16	4.81	1.28
				HA 4/310-4	6.25	4.39	1.43
4T-8.2	7.75	5.84	1.33	HA 4/385-4	7.72	5.41	1.43
4P-10.2	9.33	6.59	1.41	HA 4/465-4	9.34	6.55	1.43
4N-12.2	11.67	8.11	1.44	HA 4/555-4	11.12	7.80	1.43
4J-13.2	12.78	9.27	1.38	HA 4/650-4	13.05	9.15	1.43
4H-15.2	14.81	10.75	1.38	HA 5/725-4	14.54	10.19	1.43
4G-20.2	17.24	12.96	1.33	HA 5/830-4	16.64	11.67	1.43
6J-22.2	19.18	13.92	1.38	HA 5/945-4	18.86	13.32	1.42
6H-25.5	22.20	16.14	1.38	HA 6/1080-4	21.35	14.32	1.49
6G-30.2	25.90	19.45	1.33	HA 6/1240-4	24.47	16.46	1.49
				HA 6/1410-4	27.78	18.73	1.48
6F-40.2	31.40	23.40	1.34				

Bitzer x Copeland DWM

Performance Frigorífica - Congelados

Condições Congelados: -30º/45º ; R22; Sub-resfriamento = 0 K; Temp. do gás de sucção = 20º C ; 60Hz
Fonte: Software Bitzer 4.0.2 e Copeland Selection Software 5.21

BITZER				Copeland DWM Standard				Copeland DWM Discus			
Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP
				DKM-50	0.67	0.62	1.08				
				DKM-5X	0.67	0.62	1.08				
				DKM-75	0.66	0.62	1.08				
				DKM-7X	0.66	0.62	1.08				
				DKM-100	0.74	0.64	1.15				
				DKJ-75	0.96	0.81	1.19				
				DKJ-7X	0.96	0.81	1.19				
				DKJ-100	0.97	0.82	1.18				
				DKJ-10X	0.97	0.82	1.18				
				DKJ-150	0.98	0.84	1.17				
				DKJ-15X	0.98	0.84	1.17				
2HC-1.2	1.36	1.03	1.31	DKSJ-100	1.32	1.07	1.23				
				DKSJ-10X	1.32	1.07	1.23				
				DKSJ-150	1.32	1.09	1.21				
				DKSJ-15X	1.32	1.09	1.21				
2GC-2.2	1.67	1.33	1.26	DKL-150	1.51	1.29	1.18				
				DKL-15X	1.51	1.29	1.18				
				DLE-201	1.64	1.52	1.08				
				DLE-20X	1.64	1.52	1.08				
2FC-2.2	2.06	1.52	1.36	DKSL-200	1.95	1.56	1.25				
				DKSL-20X	2.13	1.74	1.23				
2EC-2.2	2.41	1.86	1.30	DLF-201	2.39	2.05	1.17				
				DLF-20X	2.39	2.05	1.17				
				DLF-301	2.38	2.03	1.17				
				DLF-30X	2.38	2.03	1.17				
2DC-2.2	2.73	2.14	1.28	DLJ-201	2.81	2.30	1.22				
				DLJ-20X	2.83	2.27	1.25				
				DLJ-301	2.80	2.28	1.23				
				DLJ-30X	2.80	2.28	1.23				
2CC-3.2	3.35	2.51	1.34					D2DC-500	-	-	-
								D2DC-50X	-	-	-
4FC-3.2	3.75	2.87	1.31	DLL-301	3.75	2.88	1.31				
				DLL-30X	3.75	2.88	1.31	D2DD-500	-	-	-
				DLL-401	-	-	-	D2DD-50X	-	-	-
				DLL-40X	-	-	-				
				D2SA-450	-	-	-				
				D2SA-45X	-	-	-				

4EC-4.2	4.74	3.62	1.31	D2SA-450 Air	4.85	3.61	1.34				
				D2SA-45X Air	4.85	3.61	1.34	D2DL-400 DC	4.90	3.37	1.45
				D2SA-55X	-	-	-	D2DL-750	-	-	-
				D2SA-550	-	-	-	D2DL-75X	-	-	-
				DLSG-401	-	-	-				
				DLSG-40X	-	-	-				
4Z-5.2	5.15	4.04	1.28								
4DC-5.2	5.57	4.37	1.27	D2SC-550 Air	5.90	4.46	1.32	D2DB-500 DC	5.90	4.29	1.37
				D2SC-55X Air	5.90	4.46	1.32				
				D2SC-550	-	-	-				
				D2SC-55X	-	-	-				
				DMRH-750	-	-	-				
				D2SC-650							
				D2SC-65X							
4V-6.2	6.35	4.96	1.28	DLHA-500	6.05	4.70	1.29	D2DB-750	-	-	-
				DLHA-50X	6.05	4.70	1.29	D2DB-75X	-	-	-
				D2SK-650	-	-	-				
				D2SK-65X	-	-	-	D3DA-500 DC	6.45	4.79	1.34
				D9RA-750	-	-	-	D3DA-750	-	-	-
				D3SA-750	-	-	-	D3DA-75X	-	-	-
				D3SA-75X	-	-	-				
4T-8.2	7.75	5.84	1.33	D3SC-100X	-	-	-				
				D3SC-1000	-	-	-	D3DC-750 DC	7.90	6.00	1.32
				D3SC-750	7.15	5.65	1.28	D3DC-1000	-	-	-
				D3SC-75X	7.15	5.65	1.28	D3DC-100X	-	-	-
				D9RC-1000	-	-	-				
4P-10.2	9.33	6.59	1.41	D3SS-1500	-	-	-				
				D3SS-150X	-	-	-	D3DS-1000 DC	10.75	8.15	1.32
				D3SS-1000	10.00	8.00	1.25	D3DS-1500	-	-	-
				D3SS-100X	10.00	8.00	1.25	D3DS-150X	-	-	-
				D9RS-1500							
4N-12.2	11.67	8.11	1.44	D4SF-1000	-	-	-	D4DF-1000 DC	11.60	8.35	1.39
				D4SF-100X	-	-	-	D4DA-2000	-	-	-
				D4SA-2000	-	-	-	D4DA-200X	-	-	-
				D4SA-200X	-	-	-				
4J-13.2	12.78	9.27	1.38								
4H-15.2	14.81	10.75	1.38	D4SL-1500	-	-	-				
				D4SL-150X	-	-	-				
				D4SH-2500	-	-	-				
				D4SH-250X	-	-	-				
4G-20.2	17.24	12.96	1.33	D6SF-2000	-	-	-				
				D6SF-200X	-	-	-	D4DL-1500 DC	16.90	12.00	1.41
				D6SA-3000	-	-	-	D4DH-2500	-	-	-
				D6SA-300X	-	-	-	D4DH-250X	-	-	-
				D4ST-2000	-	-	-				
				D4ST-200X	-	-	-				
				D4SJ-3000	-	-	-				
				D4SJ-300X	-	-	-				
6J-22.2	19.18	13.92	1.38					D4DT-2200 DC	20.20	14.60	1.39

								D4DJ-3000	-	-	-
6H-25.2	22.20	16.14	1.38	D6SL-2500	-	-	-	D4DJ-300X	-	-	-
				D6SL-250X	-	-	-	D6DL-2700 DC	21.80	16.70	1.30
				D6SH-3500	-	-	-	D6DH-3500	-	-	-
				D6SH-350X	-	-	-	D6DH-350X	-	-	-
6G-30.2	25.90	19.45	1.33	D6ST-3200	-	-	-	D6DT-3000 DC	26.60	20.80	1.28
				D6ST-320X	-	-	-	D6DJ-4000	-	-	-
				D6SJ-4000	-	-	-	D6DJ-400X	-	-	-
				D6SJ-400X	-	-	-				
6F-40.2	31.40	23.40	1.34	D8SH-3700	-	-	-				
				D8SH-370X	-	-	-	D8DH-5000	-	-	-
				D8SH-5000	-	-	-	D8DH-500X	-	-	-
				D8SH-500X	-	-	-				
				D6SK-5000	-	-	-				
				D8SJ-4500	-	-	-	D8DJ-6000	-	-	-
				D8SJ-450X	-	-	-	D8DJ-600X	-	-	-
				D8SJ-6000	-	-	-				
				D8SJ-600X	-	-	-				
				D8SK-7000	-	-	-				
				D8SK-700X	-	-	-				

Bitzer x Copeland
Performance Frigorífica - Congelados

Condições Congelados: -30º/45º ; R22; Sub-resfriamento = 0 K; Temp. do gás de sucção = 20º C ; 60Hz
Fonte: Software Bitzer 4.0.2 e Copeland Calculator 1.0.25

Bitzer				Copeland Standard								Copeland Discus			
				Resfriamento a ar				Resfriamento pelo gás							
Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP	Modelo	Q (KW)	P (KW)	COP
2HC-1.2	1.36	1.03	1.31					ERC*-0200	-	-	-				
2GC-2.2	1.67	1.33	1.26	EAD* 0200	1.59	1.38	1.15	ERF*-0311	-	-	-				
2FC-2.2	2.06	1.52	1.36	EAV*-0210	2.05	1.81	1.32	3RA*-0310	2.00	-	-				
2EC-2.2	2.41	1.86	1.30												
2DC-2.2	2.73	2.14	1.28					NRB2-0400	-	-	-				
2CC-3.2	3.35	2.51	1.34	LAH*-0310	3.02	2.42	1.25	NRA2-0500	-	-	-	2DCJ-0500	3.24	-	-
4FC-3.2	3.75	2.87	1.31					NRM1-0500	-	-	-	2DD3-0500	-	-	-
								MRH4-0760	-	-	-	2DF3-0300	3.95	2.95	1.34
4EC-4.2	4.74	3.62	1.31									2DL3-0400	4.81	3.49	1.39
4DC-5.2	5.15	4.04	1.28									2DL3-0750			
												2DAJ-0750	5.16	-	-
4Z-5.2	5.57	4.37	1.27					9RJ1-0765	-	-	-	2DA3-0610	5.57	4.11	1.35
								9RC1-1015	-	-	-				
4V-6.2	6.35	4.96	1.28									2DB3-0600	6.07	4.22	1.44
4T-8.2	7.75	5.84	1.33					9RS1-1505	-	-	-	3DA3-0710	7.08	-	-
												3DA3-0750			
4P-10.2	9.33	6.59	1.41									3DB3-0750	8.57	-	-
												3DB3-0910	8.57	-	-
												3DB3-1000	-	-	-
												3DF3-1200	-	-	-
												3DS3-1500	10.36	-	-
												4DAJ-2000	10.72	-	-

4N-12.2	11.67	8.11	1.44									3DS3-1210	11.21	-	-
												4DA3-1000	11.57	8.70	1.33
4J-13.2	12.78	9.27	1.38									4DB3-2010	-	-	-
												4DH3-2500	-	-	-
4H-15.2	14.81	10.75	1.38					4RH1-2500	-	-	-	4DL3-1500	15.53	11.50	1.35
4G-20.2	17.24	12.96	1.33					4RA3-2000	-	-	-				
								4RJ2-3000	-	-	-				
6J-22.2	19.18	13.92	1.38									4DT3-2200	18.74	13.70	1.37
												4DT3-2510	18.74	-	-
												4DJ3-3000	-	-	-
6H-25.2	22.20	16.14	1.38					6RH1-3500	-	-	-	6DL3-2700	23.45	17.40	1.35
6G-30.2	25.90	19.45	1.33					6RJ1-4000	-	-	-	6DG3-3500	-	-	-
												6DT3-3000	27.99	20.80	1.35
												6DJ3-4000	-	-	-
6F-40.2	31.40	23.40	1.34												

Bitzer x Copeland Scroll

Performance Frigorífica - Congelados

Condições: -30º/45º ; R22; Sub-resfriamento = 0 K; Temp. do gás de sucção = 20º C ; 60Hz
Fonte: Bitzer Software 4.0.2 e Copeland Performance Calculator 1.0.25

Bitzer				Copeland			
Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP	Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP
2HC-1.2	1.36	1.03	1.31				
2GC-2.2	1.67	1.33	1.26	ZF06K4	1.88	1.78	1.06
2FC-2.2	2.06	1.52	1.36				
2EC-2.2	2.41	1.86	1.30	ZF08K4	2.39	2.21	1.08
2DC-2.2	2.73	2.14	1.28	ZF09K4	2.67	2.25	1.19
2CC-3.2	3.35	2.51	1.34	ZF11K4	3.28	2.54	1.29
4FC-3.2	3.75	2.87	1.31	ZF13K4	3.81	3.00	1.27
4EC-4.2	4.74	3.62	1.31	ZF15K4	4.69	3.71	1.26
4Z-5.2	5.15	4.04	1.28				
4DC-5.2	5.57	4.37	1.27	ZF18K4	5.54	4.45	1.24
4V-6.2	6.35	4.96	1.28	ZF24K4	6.59	5.80	1.14
4T-8.2	7.75	5.84	1.33				
4P-10.2	9.33	6.59	1.41	ZF33K4	9.44	7.40	1.28
4N-12.2	11.67	8.11	1.44	ZF40K4	11.34	9.20	1.23
4J-13.2	12.78	9.27	1.38	ZF48K4	13.07	11.80	1.11
4H-15.2	14.81	10.75	1.38				
4G-20.2	17.24	12.96	1.33				
6J-22.2	19.18	13.92	1.38				
6H-25.5	22.20	16.14	1.38				
6G-30.2	25.90	19.45	1.33				
6F-40.2	31.40	23.40	1.34				

Bitzer x Copeland Scroll
Performance Frigorífica - A/C

Condições Resfriados: 5º/45º ; R22; Sub-resfriamento = 0 K; Temp. suc. = 20º C ; 60Hz
Fonte: Bitzer Software 4.0.2 e Copeland Performance Calculator 1.0.25

BITZER				Copeland			
Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP	Modelo	Capacidade Frigorífica (KW)	Potência Consumida (KW)	COP
2HC-2.2	6.49	2.01	3.22	ZF06K4	5.86	2.19	2.68
				ZS15K4	5.77	2.14	2.70
2GC-2.2	7.60	2.30	3.31	ZS19K4	7.21	2.66	2.71
				ZF08K4	7.44	2.72	2.74
				ZS21K4	8.06	2.64	3.05
				ZF09K4	8.26	2.87	2.88
2FC-3.2	9.22	2.86	3.22	ZS26K4	9.93	3.32	2.99
2EC-3.2	11.08	3.37	3.29	ZF11K4	10.17	3.49	2.91
				ZS30K4	11.55	3.78	3.06
				ZF13K4	11.87	3.99	2.97
2DC-3.2	13.28	3.85	3.45	ZR54KC-	12.78	3.92	3.26
				ZR57KC-	13.22	4.09	3.23
				ZS38K4	14.13	4.65	3.04
				ZR61KC-	14.45	4.39	3.29
				ZF15K4	14.48	5.00	2.90
2CC-4.2	16.33	4.80	3.41	ZR68KC-	16.27	4.82	3.38
				ZR72KC-	17.15	5.10	3.36
				ZS45K4	17.15	5.55	3.09
				ZF18K4	17.44	5.85	2.98
4FC-5.2	18.82	5.27	3.57	ZR81KC-	19.05	5.70	3.34
				ZB50KC	19.64	6.15	3.19
				ZR84KC-	19.93	5.90	3.38
				ZR90K3-	20.52	6.60	3.11
				ZS56K4	20.52	7.00	2.93
4EC-6.2	23.10	6.62	3.49	ZF24K4	20.96	7.55	2.78
				ZB58KC	21.98	6.75	3.26
				ZR94KC-	22.57	6.75	3.34
				ZR11M3-	25.35	7.90	3.21
				ZR108KC-	25.50	7.50	3.40
				ZB66KC	25.50	7.85	3.25

4DC-7.2	28.10	7.71	3.64	ZF33K4	28.72	10.60	2.71
				ZS75K4	28.87	9.95	2.90
4Z-8.2	29.40	7.95	3.69	ZR12M3-	29.31	9.05	3.24
				ZB76KC	29.60	9.00	3.29
				ZR125KC-	29.90	9.05	3.30
4V-10.2	34.50	9.24	3.74	ZB88KC	33.70	10.10	3.34
				ZR144KC-	34.29	10.00	3.43
				ZR16M3-	36.05	11.30	3.19
				ZS92K4	36.05	11.90	3.03
				ZF40K4	36.34	12.50	2.91
4T-12.2	41.80	11.20	3.73	ZF48K4	41.62	14.90	2.79
				ZS11M4	41.62	15.20	2.74
				ZR19M3-	44.26	13.50	3.28
4P-15.2	49.00	13.95	3.51				
4N-20.2	59.30	16.55	3.58				
4J-22.2	66.80	17.76	3.76				
4H-25.2	77.00	20.50	3.75				
4G-30.2	88.20	24.30	3.63				
6J-33.2	100.30	26.70	3.76				
6H-35.2	115.50	30.80	3.75				
6G-40.2	132.40	36.50	3.63				
6F-50.2	156.10	45.40	3.44				

Bitzer x Concorrentes

Unidades Condesadoras Semi-Herméticas e Hermética

Bitzer	Copeland	McQuay	Maneurop	Bock
LH 44/2HC-1.2	C8AJ-0200 CLAL-0300	MZ035L2 MS030L2 MH 020H2	HGM022	
LH 44/2HC-2.2				
LH 44/2GC-2.2	C3AM-0202		MGM028	
LH 53/2GC-2.2	C8AM-0202	MZ045L2		
LH 44/2FC-2.2			HGM028 HGM032 MGM032	
LH 64/2FC-2.2		MH-029M2		
LH 44/2FC-3.2				
LH 64/2FC-3.2				
LH 44/2EC-2.2	CMDL-0400	MZ055L2	HGM036 MGM036	
LH 64/2EC-2.2	C3AH-0303	MZ060L2	MGM040	
LH 64/2EC-3.2	C8AJ-0300	MH-030H2		
LH 53/2DC-2.2			HGM040	
LH 64/2DC-2.2		MZ065L2	MGM050	
LH 64/2DC-3.2			HGM050	
LH 64/2CC-3.2		MH-040H2		
LH 84/2CC-3.2			MGM064	
LH 84/2CC-4.2				
LH 64/4FC-3.2		MZ075L2 MH 050H2	HGM064	
LH 84/4FC-3.2				
LH 84/4FC-5.2	C8DJ-0501			
LH 64/4EC-4.2				
LH 84/4EC-6.2		MZ090L2	HGM080 MGM080	
LH 104/4EC-4.2				
LH 104/4EC-6.2				

LH 84/4DC-5.2		MZ130L2 MZ-065H2	HGM100 MGM100	SHG4/310-4 SAG4/310-4
LH 114/4DC-5.2				
LH 104/4DC-7.2				
LH 114/4DC-7.2	C8DJ-0750			
LH 84/4CC-6.2		MST1500L2 MZ-070H2		
LH 124/4CC-6.2		MZ-075H2		
LH 114/4V-10.2		MDT1500L2	MGM125	SAG4/385-4
LH 124/4V-10.2		MST2000L2	HGM125	
LH 104/4T-8.2		MDT2200L2		SHG4/465-4 SAG4/465-4
LH 124/4T-8.2			HGM144 MGM144	
LH 114/4T-12.2		MZ-086H2		
LH 124/4T-12.2			MGM160	
LH 114/4P-10.2	C8DJ-1000	MST2500L2 MZ-100H2 MST1200H2	HGM160	SHG4/555-4 SAG4/555-4
LH 135/4P-10.2		MDT2700L2		
LH 135/4P-15.2		MDT1200H2 MST1500H2		
LH 124/4N-12.2		MDT3000L2 MST3000L2 MDT1500H2		SHG4/650-4 SAG4/650-4
LH 135/4N-12.2				
LH 135/4N-20.2				
LH 135/4J-13.2		MST2000H2		
LH 135/4J-22.2		MDT2000H2		

Bitzer x Mycom x FNC

Compressores Abertos

Deslocamento Volumétrico

Condições: 60Hz

BITZER - Abertos de Baixa			BITZER - Abertos de Alta			MYCOM			F N C		
Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h
I	970	2.9									
II	995	4.5									
III	995	9.4									
IV (W)	740	14.7									
						E50	680	19			
			2T.2	1750	24						
V (W)	700	28.6				E70	680	27			
			4P	970	32						
			2N.2	1750	34						
VI (W)	565	44	4T.2	1750	47	E100	650	51	AJ 10 x 85	960	47
			4P.2	1750	57	F4C2	1500	60			
			4M	1450	57						
VII (W)	505	58.3									
			4M	1750	68						
			4N.2	1750	68						
						F2A2	1200	78			
			4H	1750	89	F6C2	1500	90	AJ 20 x 85	960	93
			4H.2	1750	89						
			4G	1750	102						
			4G.2	1750	102						
			6H	1750	133				AW 30 x 85	960	140
			6H.2	1750	133						
			6G	1750	153	F4A2	1200	155			
			6G.2	1750	153						
			6F.2	1750	183				AV 20 x 110	750	200
									AW 30 x 110	750	300
						F6A2	1200	232	AV 40 x 110	750	400
						F8A2	1200	310	AW 60 x 110	750	600
						F4B2	1200	382	AW 90 x 110	750	900
						F6B2	1200	573			
						F8B2	1200	764			

Bitzer x MADEF x DORIN

Compressores Abertos

Deslocamento Volumétrico

Condições: 60Hz

BITZER - Abertos de Baixa			BITZER - Abertos de Alta			MADEF			DORIN		
Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h
									OVT-A	1150	1.88
I	970	2.9							OVTM-A	1150	2.97
II	995	4.5							1 VT	900	4.43
									1 HVS	1450	6.61
III	995	9.4							2 VT	900	9.56
IV (W)	740	14.7							2 GVS	1450	14.75
									3 VT	900	18.36
			2T.2	1750	24				3 VS	1200	24.48
V (W)	700	28.6							3 LVS	1300	27.35
			4P	970	32						
			2N.2	1750	34						
VI (W)	565	44	4T.2	1750	47	1C 11 x 8	950	43	41 VS	1250	42
									41 VSR (VSM)	1300	43.68
			4P.2	1750	57						
			4M	1450	57						
VII (W)	505	58.3									
			4M	1750	68						
			4N.2	1750	68				51 VS	1250	71.17
									51 VSR (VSM)	1300	74.02
			4H	1750	89	2C 11 x 8	950	86			
			4H.2	1750	89						
			4G	1750	102						
			4G.2	1750	102						
			6H	1750	133	3C 11 x 8	950	130	62VS/4B (6B)	1750	130.73
			6H.2	1750	133						
			6G	1750	153				67 VS/6B	1750	151.2
			6G.2	1750	153						
			6F.2	1750	183	2C 16 x 11	750	200	80 VS	1750	195.83
						3C 16 x 11	750	300			
						4C 16 x 11	750	400			
						6C 16 x 11	750	600			

Bitzer x Carrier x Bock

Compressores Abertos

Deslocamento Volumétrico

Condições: 60Hz

BITZER - Abertos de Baixa			BITZER - Abertos de Alta			CARRIER			BOCK		
Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h
I	970	2.9									
II	995	4.5							BFO 1	1500	4
III	995	9.4							BFO 2	1500	11
IV (W)	740	14.7									
			2T.2	1750	24				BFO 3	1500	21
V (W)	700	28.6									
			4P	970	32	5 F 20	1750	32			
			2N.2	1750	34						
VI (W)	565	44	4T.2	1750	47	5 F 30	1750	51	BFO 4	1500	42
			4P.2	1750	57						
			4M	1450	57						
VII (W)	505	58.3									
			4M	1750	68	5 F 40	1750	68			
			4N.2	1750	68						
									BFO 5	1500	76.2
			4H	1750	89						
			4H.2	1750	89						
			4G	1750	102	5 F 60	1750	101			
			4G.2	1750	102						
									BFO 6	1500	114.3
			6H	1750	133						
			6H.2	1750	133						
			6G	1750	153	5 H 40	1750	157			
			6G.2	1750	153						
			6F.2	1750	183	5 H 46 *	1750	196			
						5 H 60	1750	235			
						5 H 66 *	1750	294			
						5 H 80	1750	314			
						5 H 86 *	1750	393			
						5 H 120	1750	471			
						5 H 126 *	1750	588			

Bitzer x Mycom x Madef x FNC

Compressores Abertos para NH_3

Deslocamento Volumétrico

Condições: 60Hz

BITZER			MYCOM			MADEF			F N C		
Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h
W2TA	1750	24									
W2NA	1750	34									
W4TA	1750	47				1C 11 x 8	950	43	AJ 10 x 85	960	47
W4PA	1750	57	N4C	1500	60						
W4NA	1750	68									
			N2A	1200	78						
W4HA	1750	89	N6C	1500	90	2C 11 x 8	950	86	AJ 20 x 85	960	93
W4GA	1750	102									
W6HA	1750	133				3C 11 x 8	950	130	AW 30 x 85	960	140
W6GA	1750	153	N4A	1200	155						
W6FA	1750	183				2C 16 x 11	750	200	AV 20 x 110	750	200
			N6A	1200	232						
			N8A	1200	310	3C 16 x 11	750	300	AW 30 x 110	750	300
			N4B	1200	382	4C 16 x 11	750	400	AV 40 x 110	750	400
			N6B	1200	573	6C 16 x 11	750	600	AW 60 x 110	750	600
			N8B	1200	764				AW 90 x 110	750	900

Bitzer x FNC x Mycom x Madef

Compressores Abertos Duplo-Estágio para NH_3

Deslocamento Volumétrico

Condições: 60Hz

BITZER			F N C			MYCOM			MADEF		
Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h
S6GAN	1750	102									
S6GAT	1750	102									
S6FAN	1750	122									
S6FAT	1750	122	AW 30x85 2E	960	140	N42A	1200	155	3C 11x8 2E	950	130
			AW 30x110 2E	750	300	N62A	1200	232	3C 16x11 2E	750	300
			AW 40x110 2E	750	400	N42B	1200	382	4C 16x11 2E	750	400
			AW 60x110 2E	750	600	N62B	1200	574	6C 16x11 2E	750	600
			AW 90x110 2E	750	900						

Bitzer x Bock x ThermoKing

Compressores Alumínio

Volume do Cilindro

Bitzer	(cm^3)	Bock Novo	(cm^3)	Bock	(cm^3)	Thermo King	(cm^3)
---	---	FK 30/325	325	---	---	---	---
---	---	FK 40/390	385	---	---	---	---
4UFC	400	---	---	---	---	---	---
---	---	---	---	---	---	X 426	426
---	---	FK 50/460	460	---	---	---	---
---	---	FK 40/470	465	FK 4	466	---	---
4TFC	475	---	---	FK26/470	470	---	---
---	---	---	---	---	---	X 430	492
---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---
4PFC	558	FK 40/560	555	FK26/550	554	---	---
---	---	FK 50/555	555	---	---	---	---
6UFC	600	---	---	---	---	---	---
---	---	---	---	---	---	---	---
4NFC	647	FK40/655	650	FK40/650	650	---	---
---	---	FK 50/660	660	---	---	---	---
6TFC	713	---	---	---	---	---	---
6PFC	836	FK 50/775	775	FK 50/755	776	---	---

Bitzer x Carrier x Denso x Hipascold x Seltec

Compressores Alumínio

Volume do Cilindro

Bitzer	(cm^3)	Carrier	(cm^3)	Denso	(cm^3)	Hipascold	(cm^3)	Seltec	(cm^3)
---	---	---	---	---	---	---	---	TM 31HD	314
---	---	---	---	---	---	---	---	---	---
4UFC	400	05 K	400	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---
4TFC	475	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---
---	---	---	---	6C 500	500	500/4C	500	---	---
---	---	---	---	6D 500	500	---	---	---	---
4PFC	558	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---
6UFC	600	---	---	---	---	600/4C	600	---	---
---	---	---	---	---	---	600/6C	600	---	---
4NFC	647	---	---	---	---	---	---	---	---
---	---	05 G	672	---	---	---	---	---	---
6TFC	713	---	---	---	---	---	---	---	---
6PFC	836	---	---	---	---	---	---	---	---

Bitzer (1ª Ger. x 2ª Ger. x Octagon)
Deslocamento Volumétrico

Condições: 60 Hz
Fonte: Bitzer Software 4.0.2

Deslocamento Volumétrico (m^3/h)	Compressor Bitzer 1ºGeração	Compressor Bitzer 2ºGeração	Compressor Bitzer Octagon
6.3	BHS 111	-	-
7.9	BHS 171	2HL-1.2	2HC-1.2
7.9	-	-	2HC-2.2
9.2	BHS 191	2GL-2.2	2GC-2.2
11.5	BHS 231	2FL-2.2	2FC-2.2
11.5	-	-	2FC-3.2
13.7	-	2EL-2.2	2EC-2.2
13.7	BHS 491	2EL-3.2	2EC-3.2
16.1	BHS 351	2DL-2.2	2DC-2.2
16.1	-	2DL-3.2	2DC-3.2
19.6	-	2CL-3.2	2CC-3.2
19.6	-	2CL-4.2	2CC-4.2
20.0	BHS 702	-	-
21.8	BHS 502	2U-3.2	4FC-3.2
21.8	BHS 802	2U-5.2	4FC-5.2
27.4	BHS 592	2Q-4.2	4EC-4.2
27.4	BHS 962	2Q-6.2	4EC-6.2
32.4	-	2N-5.2	4DC-5.2
32.4	BHS 1275	2N-7.2	4DC-7.2
33.9	BHS 752	4Z-5.2	-
33.8	BHS 1252	4Z-8.2	-
39.9	BHS 902	4V-6.2	4CC-6.2
39.9	BHS 1452	4V-10.2	-
47.5	BHS 1102	4T-8.2	-
47.5	BHS 1702	4T-12.2	-
56.9	BHS 1282	4P-10.2	-
56.9	BHS 2022	4P-15.2	-
59.5	SH 4L-10	-	-
59.5	SH 4L-15	-	-
67.7	BHS 1522	4N-12.2	-
67.7	BHS 2402	4N-20.2	-
69.2	SH 4M-10	-	-
69.2	SH 4M-20	-	-
76.6	-	4J-13.2	-
76.6	-	4J-22.2	-
88.8	SH 4H-15	4H-15.2	-
88.8	SH 4H-25	4H-25.2	-
102.0	SH 4G-20	4G-20.2	-
102.0	SH 4G-30	4G-30.2	-
115.0	-	6J-22.2	-
115.0	-	6J-33.2	-
133.4	SH 6H-25	6H-25.2	-
133.4	SH 6H-35	6H-35.2	-
153.0	SH 6G-30	6G-30.2	-
153.0	SH 6G-40	6G-40.2	-
182.9	-	6F-40.2	-
182.9	-	6F-50.2	-

Bitzer x Dorin

Deslocamento Volumétrico

Condições: 60Hz

BITZER		DORIN	
Modelo	Deslocamento Volumétrico (m^3/h)	Modelo	Deslocamento Volumétrico (m^3/h)
2HC-1.2	7.9	K 100 CS	8.1
2HC-2.2	7.9	K 150 CC	8.1
2GC-2.2	9.2	K 150 CS	9.25
		K 180 CC	9.25
2FC-2.2	11.5	K 180 CS	10.41
2FC-3.2	11.5	K 200 CC	10.41
		K 230 CS	11.86
		K 235 CC	11.86
2EC-2.2	13.7	K 250 CS	14.94
2EC-3.2	13.7	K 280 CC	14.94
2DC-2.2	16.1	K 280 SB	17.16
2DC-3.2	16.1	K 300 CS	17.16
2CC-3.2	19.6	K 400 CC	20.11
2CC-4.2	19.6	K 290 SB	20.13
4FC-3.2	21.8	K 300 SB	22.56
4FC-5.2	21.8	K 400 CS	23.16
		K 470 CC	23.16
4EC-4.2	27.4	K 470 CS	28.04
4EC-6.2	27.4	K 500 CC	28.04
4DC-5.2	32.4	K 500 SB	31.8
4DC-7.2	32.4	K 500 CS	31.8
		K 740 CC	31.8
4Z-5.2	33.9		
4Z-8.2	33.9		
4CC-6.2	39.2	K 750 CC	39.05
4V-6.2	39.9		
4V-10.2	39.9		
4T-8.2	47.5	K 750 CS	46.37
4T-12.2	47.5	K 1000 CC	46.37
4P-10.2	56.9	K 1000 CS	58.56
4P-15.2	56.9	K 1500 CC	58.56
4N-12.2	67.7	K 1500 CS	69.48
4N-20.2	67.7	K 2000 CC	69.48
4J-13.2	76.6		
4J-22.2	76.6		
4H-15.2	88.8	K 1500 CB	87.84
4H-25.2	88.8	K 2500 CC	87.84
4G-20.2	102.0	K 2500 CB	100.68
4G-30.2	102.0	K 3000 CC	100.68
6J-22.2	115.0		
6J-33.2	115.0		
6H-25.2	133.4	K 3000 CS	132.72
6H-35.2	133.4	K 3500 CC	132.72
6G-30.2	153.0	K 3000 CB	152.04
6G-40.2	153.0	K 4000 CC	152.04
		K 4500 CS	165.96
6F-40.2	182.9	K 4700 CS	184.44
6F-50.2	182.9	K 5000 CC	184.44

Bitzer x Frascold
Deslocamento Volumétrico

Condições: 60Hz

BITZER		FRASCOLD	
Modelo	Deslocamento Volumétrico (m^3/h)	Modelo	Deslocamento Volumétrico (m^3/h)
2HC-1.2	7.9	A 1 7	8.3
2HC-2.2	7.9	A 1,5 7	8.3
2GC-2.2	9.2	A 1,5 8	9.2
2FC-2.2	11.5		
2FC-3.2	11.5		
2EC-2.2	13.7	D 2 11	13.5
2EC-3.2	13.7		
2DC-2.2	16.1	D 2 13	16.6
2DC-3.2	16.1	D 3 13	16.6
2CC-3.2	19.6	D 3 15	18.4
2CC-4.2	19.6	F 4 16	19.7
4FC-3.2	21.8	F 4 19	22.9
4FC-5.2	21.8	F 5 19	22.9
4EC-4.2	27.4	F 4 24	28.3
4EC-6.2	27.4	F 5 24	28.3
4DC-5.2	32.4	F 5 25	30.3
4DC-7.2	32.4	F 7 25	30.3
4Z-5.2	33.9		
4Z-8.2	33.9		
4CC-6.2	39.2	S 5 33	39.4
4V-6.2	39.9	S 7 33	39.4
4V-10.2	39.9		
4T-8.2	47.5	S 7 39	45.9
4T-12.2	47.5	S 10 39	45.9
4P-10.2	56.9	S 10 51	60.5
4P-15.2	56.9	S 15 51	60.5
4N-12.2	67.7	V 15 59	70.2
4N-20.2	67.7	V 20 59	70.2
4J-13.2	76.6		
4J-22.2	76.6		
4H-15.2	88.8	V 15 71	84.9
4H-25.2	88.8	V 25 71	84.9
4G-20.2	102.0	Z 30 88	105.9
4G-30.2	102.0		
6J-22.2	115.0		
6J-33.2	115.0		
6H-25.2	133.4	Z 25 106	127.4
6H-35.2	133.4	Z 35 106	127.4
6G-30.2	153.0	Z 30 126	150.9
6G-40.2	153.0	Z 40 126	150.9
6F-40.2	182.9	W 40 142	169.8
6F-50.2	182.9	W 40 168	201.1
		W 50 168	201.1

Bitzer x Prestcold
Deslocamento Volumétrico

Condições: 60Hz

BITZER		PRESTCOLD	
Modelo	Deslocamento Volumétrico (m³/h)	Modelo	Deslocamento Volumétrico (m³/h)
2HC-1.2	7.9	K260/E12L	7.3
2HC-2.2	7.9	K260/F12H-F22L-F502L	7.3
		K260/G22M	7.3
2GC-2.2	9.2		
2FC-2.2	11.5	K376/F12L	10.6
2FC-3.2	11.5	K376/F12L	10.6
		K376/G12H-G22L-G502L	10.6
2EC-2.2	13.7		
2EC-3.2	13.7		
2DC-2.2	16.1	L567/H12L	16
2DC-3.2	16.1	L567/I12H-I22L-I502L	16
		L567/J22H	16
2CC-3.2	19.6	L640/H12L	18
2CC-4.2	19.6	L640/I12M	18
4FC-3.2	21.8	L773/I12L	21.7
4FC-5.2	21.8	L773/J12H-J22L-J502L	21.7
4EC-4.2	27.4	N915/K22H	25.9
4EC-6.2	27.4	L954/J12M	26.9
		L954/J12L	26.9
4DC-5.2	32.4	N1136/K12HL-K502L	32
4DC-7.2	32.4	N1136/N22H	32
		N1136/K12HL-K502L	32
		N1136/N22H	32
4Z-5.2	33.9		
4Z-8.2	33.9		
4CC-6.2	39.2	R1370/K12HL-K502L	38.4
		R1370/K12HL-K502L	38.4
		R1370/N22H	38.4
4V-6.2	39.9		
4V-10.2	39.9		
4T-8.2	47.5	R1620/K12L	45.2
4T-12.2	47.5	R1620/N12H-N502L	45.2
		R1620/P22H	45.2
4P-10.2	56.9	R2120/N12HL	60
4P-15.2	56.9	R2120/P502L	60
		R2120/P12H	60
		R2120/Q22H	60
4N-12.2	67.7		
4N-20.2	67.7		
4J-13.2	76.6		
4J-22.2	76.6		
4H-15.2	88.8		
4H-25.2	88.8		
4G-20.2	102.0		
4G-30.2	102.0		
6J-22.2	115.0		
6J-33.2	115.0		
6H-25.2	133.4		
6H-35.2	133.4		
6G-30.2	153.0		
6G-40.2	153.0		
6F-40.2	182.9		
6F-50.2	182.9		

Bitzer x Royce

Compressores Abertos

Deslocamento Volumétrico

Condições: 60Hz

BITZER			ROYCE		
Modelo	RPM	Deslocamento Volumétrico (m³/h)	Modelo	RPM	Deslocamento Volumétrico (m³/h)
I	970	2.9	CA001	975	2.9
II	995	4.5	CA002	1000	4.5
III	995	9.4	CA003	1000	9.4
IV(W)	740	14.7	CA004	750	14.9
V(W)	700	28.6	CA005	700	28.6
VI(W)	565	44			
VII(W)	505	58.3			
2T.2	1750	24	CF005	1800	24.4
			CF007,5	1800	29.2
2N.2	1750	34	CF010	1800	34.8
4T.2	1750	47			
4P.2	1750	57	CF015	1800	58.5
4N.2	1750	68	CF020	1800	69.6
4H.2	1750	89	CF025	1800	91.4
4G.2	1750	102	CF030	1800	104.9
6H.2	1750	133	CF035	1800	137.1
6G.2	1750	153	CF040	1800	157.4
			CG040	1800	154.12
6F.2	1750	183	CG050	1800	192.7

Bitzer x Mycom x Stal

Compressores Parafuso

Deslocamento Volumétrico

BITZER			MYCOM			STAL		
Modelo	RPM	m^3/h	Modelo	RPM	m^3/h	Modelo	RPM	m^3/h
OSK 5341	3500	101	80 L	3500	94			
OSK 5351	3500	121						
OSN 5351	3500	121						
OSK 5361	3500	142						
OSN 5361	3500	142						
			M40 SC	3500	169			
OSK 7041	3500	199	100 L	3500	181			
OSN 7041	3500	199	M50 SC	3500	208			
OSK 7451	3500	232	125 S	3500	235	F 19	3500	242
OSN 7451	3500	232				R 51	3500	245
OSK 7461	3500	266	M60 SC	3500	257			
OSN 7461	3500	266						
OSK 7471	3500	302				R 53	3500	288
OSN 7471	3500	302						
			125L	3500	353	R 55	3500	345
			160 S	3500	496	R 57	3500	412
			160 L	3500	743	R 59	3500	505
			200 S	3500	967	S 24	3500	600
			200 M	3500	1212	S 26	3500	840
			200 L	3500	1452	S 81	3500	1153
			250 S	3500	1884	S 57	3500	1550
			250 M	3500	2364	S 83	3500	1576
			250 L	3500	2820	S 71	3500	2020
			320 S	3500	3792	S 85	3500	2171
			320 M	3500	4716	S 73	3500	3010
			320 L	3500	5652	S 87	3500	3125
						S 89	3500	4561
						S 75	3500	4650
						S 93	3500	6895