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new PRODUCTS CATALOGUE

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MLT (Ø 300mm) Low Temperature Unit Cooler

Model			MLT012	MLT022	MLT027	MLT033	MLT038	MLT057
Capacity W	SC3 Cond*1	R404A	1171	2195	2744	3293	3796	5671
		R507	1198	2250	2813	3380	3910	5781
		R22	1054	1976	2470	2964	3416	5104
	SC4 Cond*2	R404A	911	1709	2136	2563	2955	4414
		R507	933	1752	2189	2631	3044	4500
		R22	820	1538	1922	2307	2659	3973
Refrigerant Charge*3 kg		R404A	0.87	1.71	2.32	2.54	3.12	4.48
		R507	0.91	1.79	2.43	2.65	3.26	4.68
		R22	0.97	1.90	2.58	2.82	3.47	4.97
No. of Coil Rows			3	3	4	3	4	4
Fan Data (300mm Dia) (240V/1/50Hz)		No. of Fan	1	2	2	3	3	4
		Air Flow m³/h	1296	2592	2488	3888	3672	4896
		Air Throw m	6.4	9.1	8.6	11.2	10.6	11.9
		Total Power W	73	146	146	219	219	292
		Total Current A	0.32	0.64	0.64	0.96	0.96	1.28
Heater Data (50 Hz)		Total Watts W	900	1800	1800	2700	2700	3600
		Total Amps A	3.75	7.5	7.5	-	-	-
		Amps/Phase	-		-	3.75	3.75	5
		Volts/Phase	240/1	240/1	240/1	415/3	415/3	415/3
		Connection	-		-	Star	Star	Star
Connection mm		Liquid	12.7	12.7	12.7	12.7	12.7	12.7
		Suction	15.9	19.1	22.2	22.2	25.4	25.4
Weight		Kg	10.8	17.5	19.5	24.4	26.5	34.6
Dimensions mm		Length	750	1155	1155	1560	1560	1970
		Width	470	470	470	470	470	470
		Height	430	430	430	430	430	430

*1 SC3 Conditions : -25°C SST, -18°C Room Temperature, 7 KTD
*2 SC4 Conditions : -31°C SST, -25°C Room Temperature, 6 KTD
*3 SC3 Conditions : 80% liquid and 20% vapour by volume including header and coil.

Correction Factor MLT						
Fin Space	6FPI	5FPI	4FPI			
Fin Correction Factor	1.27	1.13	1.00			
Refrigerant Type	R22					
Refrigeration Correction Factor (R404A)	0.9					
Capacity factor and application limits R404A						
SST ˚ C	-40	-35	-30	-25	-20	-15
Correction Factor	0.71	0.82	0.91	1.00	1.09	1.18
Max KTD	11	11	10	10	10	10
Min KTD	4	4	4	4	4	4

Standard coils are 4 FPI aluminium. Multiply capacity by factors to find capacity with required FPI and material.
Application limits do not change for 5 FPI or copper coils.

Notes : Capacity Factors Tables
1. Capacity factor applies to SST @ 1 KTD. Actual capacity x factor x required KTD ÷ std KTD
2. The limits of this chart are intended to indicate the maximum application range of standard MLT coils.
3. For applications outside of these limits, consult us. Distributors and / or circuiting may be unsuitable outside of these limits.
4. Refrigerant capacity factors were calculated using the latest thermodynamic data from the refrigerant manufacturer and the refrigeration coil rating program.

MLT (Ø 350mm) Low Temperature Unit Cooler

Model			MLT016	MLT019	MLT041	MLT045	MLT049	MLT051	MLT061	MLT068	MLT081	MLT091	MLT103	MLT115	MLT124
Capacity W	SC3 Cond*1	R404A	1610	1875	4116	4528	4893	5122	6083	6814	8141	9147	10336	11525	12439
		R507	1646	1944	4249	4642	5035	5264	6229	6970	8341	9430	10578	11753	12897
		R22	1529	1781	3910	4301	1649	4866	5778	6474	7734	8689	9 819	10949	11817
	SC4 Cond*2	R404A	1253	1460	3204	3524	3809	3987	4735	5304	6337	7120	8046	8971	9683
		R507	1282	1513	3307	3613	3920	4098	4849	5425	6472	7341	8234	9149	10039
		R22	1190	1387	3044	3348	3619	3788	4498	5039	6020	6764	7643	8523	9199
Refrigerant Charge* kg³		R404A	1.38	1.58	2.72	3.17	4.07	3.95	4.04	4.42	6.10	6.93	8.24	7.81	8.76
		R507	1.45	1.65	2.84	3.31	4.25	4.12	4.22	4.62	6.37	7.23	8.60	8.15	9.14
		R22	1.54	1.76	3.02	3.52	4.51	4.38	4.48	4.91	6.77	7.69	9.15	8.67	9.72
No. of Coil Rows			3	3	3	3	4	4	3	3	4	4	4	3	4
Fan Data (350mm Dia) (230V/1/50Hz)		No. of Fans	1	1	2	2	2	2	3	3	3	4	4	5	5
		Air Flow m³/h	2520	2520	5040	5040	4950	4950	7776	7776	7416	9900	9900	12960	12384
		Air Throw m	8.1	8.1	11.6	11.6	11.0	11.0	14.3	14.3	13.6	15.2	15.2	17.9	17.0
		Total Power W	155	155	310	310	310	310	465	465	465	620	620	775	775
		Total Current A	0.65	0.65	1.3	1.3	1.3	1.3	1.95	1.95	1.95	2.6	2.6	3.25	3.25
Heater Data (50 Hz)		Total Watts W	1600	1600	3200	3200	3200	3200	4800	4800	4800	6400	6400	8000	8000
		Total Amps A	6.67	6.67	-	-	-	-	-	-	-	-	-	-	-
		Amps/Phase	-	-	6.67	6.67	6.67	6.67	10	10	10	13.33	13.33	16.67	16.67
		Volts/Phase	240/1	240/1	415/3	415/3	415/3	415/3	415/3	415/3	415/3	415/3	415/3	415/3	415/3
		Connection	-	-	Star	Star	Star	Star	Star	Star	Star	Star	Star	Star	Star
Connection mm		Liquid	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	12.7	12.7	12.7	12.7	12.7
		Suction	19.1	19.1	25.4	25.4	25.4	25.4	28.6	28.6	31.8	34.9	41.3	41.3	41.3
Weight		Kg	15.2	15.5	27.0	27.8	31.2	31.3	38.1	38.9	45.2	58.9	63.0	69.6	77.8
Dimension mm		Length	850	850	1485	1485	1485	1485	2060	2060	2060	2030	2630	3200	3200
		Width	470	470	470	470	470	470	470	470	470	470	470	470	470
		Height	545	545	545	545	545	545	545	545	545	545	545	545	545

*1 SC3 Conditions : -25°C SST, -18°C Room Temperature, 7 KTD
*2 SC4 Conditions : -31°C SST, -25°C Room Temperature, 6 KTD
*3 SC3 Conditions : 80% liquid and 20% vapour by volume including header and coil.

Correction Factor MLT						
Fin Space	6FPI	5FPI	4FPI			
Fin Correction Factor	1.25	1.12	1.00			
Refrigerant Type	R22					
Correction Factor (R404A)	0.95					
Capacity factor and application limits R404A						
SST ° C	-40	-35	-30	-25	-20	-15
Correction Factor	0.71	0.82	0.91	1.00	1.09	1.18
Max. KTD	11	11	10	10	10	10
Min. KTD	4	4	4	4	4	4

Standard coils are 4FPI aluminium. Multiple capacity by factors to find capacity with required FPI and material.
Application limits do not change for 5FPI or copper coils.

Notes : Capacity Factor Tables

1. Capacity factor applies to SST @ 1 KTD. Actual capacity = capacity x factor x required KTD ÷ std KTD
2. The limits on this chart are intended to indicate the maximum application range of standard MLT coils.
3. For application outside of these limits, us. Distributors and /or circuiting may be unsuitable outside of these limits.
4. Refrigerant capacity factors were calculated using the latest thermodynamic data from the refrigerant manufacturer and the refrigeration coil rating program.

Heavy Duty Evaporators

MHDE Low Temperature Heavy Duty Induced Draught Coolers (6.35mm / 4 fpi)

			MHDE051	MHDE071	MHDE081	MHDE101	MHDE131	MHDE151	MHDE181	MHDE221	MHDE251	MHDE281	MHDE341
Capacity Watts	SC3 Cond*1	R404A	6380	9170	9400	12410	16020	18340	22520	26810	30400	30400	40400
		R22	6260	8990	9220	12180	15710	17980	22070	26290	29800	33330	41180
		R407C	6890	9540	9760	12890	16370	18390	23440	27410	32840	35720	44130
		R507	6370	8820	9020	11910	15130	16990	21660	25330	30340	33010	40780
	SC4 Cond*2	R404A	4870	6990	7170	9470	12220	13990	17180	20450	23190	25940	30820
		R22	4890	7010	7190	9500	12250	14030	17220	20500	23250	26000	32120
		R407C	5490	7600	7780	10280	13050	14660	18680	21850	26180	48470	35180
		R507	4860	6720	6880	909	11540	12960	16520	19320	23140	25180	31110
No. of Rows			4	6	3	4	5	6	5	6	5	6	6
Total Heat Transfer Surface Area m²			27.4	41.0	41.0	54.7	80.8	82.0	102.6	123.0	126.0	151.0	188.8
Refrigerant Charge*3 kg		R404A	9.3	13.5	17.0	17.7	21.9	26.9	32.8	39.0	40.8	48.3	74.0
		R22	10.4	15.1	19.0	19.8	24.5	30.0	36.6	43.6	45.6	54.0	82.8
		R407C	10.0	14.5	18.2	18.9	23.4	28.7	35.0	41.6	43.6	51.6	79.1
		R507	9.7	14.1	17.7	18.5	22.9	28.0	34.2	40.7	42.6	50.4	77.2
Fan Data (500mm Dia) (415V 50Hz 3Ph)		No. of Fan	1	1	2	2	2	2	3	3	4	4	5
		Air Flow m³/h	7056	6912	14256	14112	13968	13824	20952	20772	27996	27684	34596
		Air Throw m	18	18	20	20	20	20	22	22	23	23	24
		Total Power Watts	600	600	1200	1200	1200	1200	1800	1800	24000	24000	3000
		Total Current Amps	1.15	1.15	2.3	2.3	2.3	2.3	3.45	3.45	4.6	4.6	5.75
Heater Data (50 Hz)		Total Watts W	52	5250	8700	8700	8700	8700	13600	13600	15320	15320	18280
		Total Amps* A	8.5	8.5	14.6	14.6	14.6	14.6	20.0	20.0	28.2	28.2	33.6
		Connection	Star	Star	Star	Star	Star	Star	Star	Star	Star	Star	Star
Net Weight Kg			75	85	125	135	150	160	205	230	270	290	350
Shipping Volume m³			1.0	1.0	1.7	1.70	1.70	1.70	2.4	2.4	2.85	2.85	3.31
Dimensions		Length	1265	1265	2215	2215	2215	2215	3165	3165	3315	3315	4065
		Width	520	520	520	520	520	520	520	520	520	520	520
		Height	890	890	890	890	890	890	890	890	1015	1015	1015

*1 SC3 Conditions : -25°C SST, -18°C Room Temperature, 7 KTD
*2 SC4 Conditions : -31°C SST, -25°C Room Temperature, 6 KTD
*3 SC3 Conditions : ~ 80% liquid and 20% vapour by volume including header and heat exchanger.

* = Given as Total Amps for 240V supply, or Maximum Amps/phase for 415V supply.

Capacity Factor and Application Limits Table

R404A R407C	SST °C	-36	-33	-30	-27	-25	-21	-18	-15	-12
	Factor R404A	0.79	0.85	0.91	0.96	1.00	1.08	1.14	1.22	1.29
	Factor R407C	0.86	0.90	0.94	0.97	1.00	1.05	1.09	1.15	1.21
	Max KTD	8	9	9	9	9	9	9	9	8
	Min KTD	4	4	4	3	3	4	4	4	4
R22 R507	SST°C	-36	-33	-30	-27	-25	-21	-18	-15	-12
	Factor R22	0.83	0.88	0.93	0.97	1.00	1.07	1.13	1.19	1.26
	Factor R507	0.81	0.86	0.91	0.97	1.00	1.08	1.13	1.21	1.28
	Max KTD	8	9	9	9	9	9	9	8	8
	Min KTD	4	4	3	3	3	3	4	4	5
Limitations		Fan peripheral heaters required. Distributor and / or circuit change required if outside max/min KTD.				Distributor change required if outside max/min KTD.				

Fin Capacity Correction Factors

4FPI	5FPI	6FPI
1	1.08	1.15

Notes : Capacity Factor Tables

1. Actual capacity = Capacity at Rated Conditions X Factor X Actual KTD ÷ KTD at Rated Conditions.
2. For application below -35˚C room temperature, please consult our sales representative.
3. Capacity - Based on Eurovent Standards.
   SC3 Conditions : -25˚C SST, -18˚C Room Temperature, 7 KTD
   SC4 Conditions : -31˚C SST, -25˚C Room Temperature, 6 KTD
4. For applications outside these limits, please consult our sales representative. Distributors, circuiting and /or defrost characteristics may be unsuitable outside these limits.
5. Refrigerant capacity factors were calculated using the latest thermodynamic data from the refrigerant manufacturer, and the coil rating program.

THE HEART OF FRESHNESS

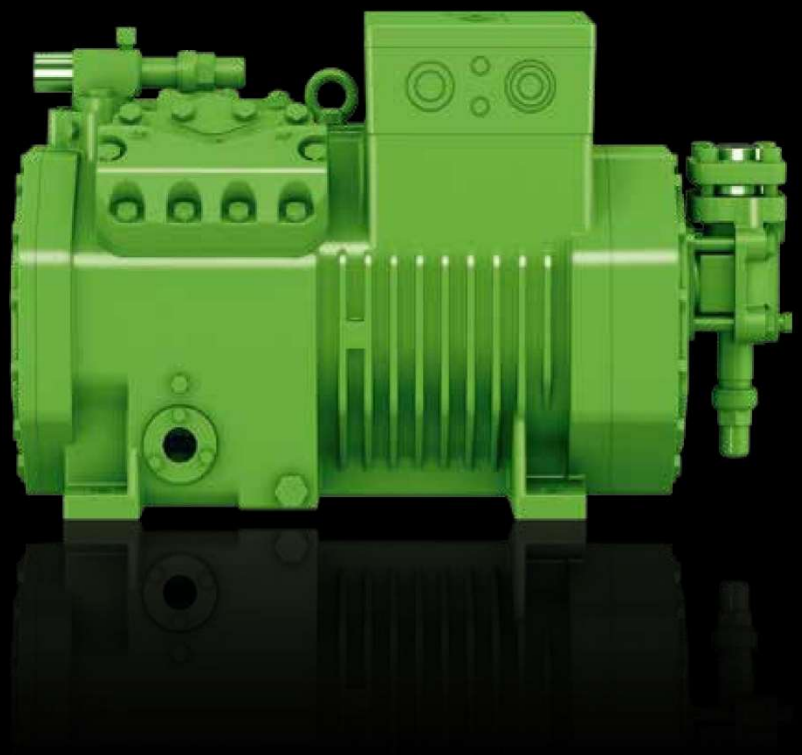
SEMI-HERMETIC

RECIPROCATING COMPRESSORS

HALBHERMETISCHE HUBKOLBENVERDICHTER

COMPRESSEURS HERMÉTIQUES ACCESSIBLES À PISTON

ECOLINE



50 Hz // KP-104-4

TECHNICAL DATA

Compressor type	Motor version	BITZER Former Models	Displacement at 1450 min -1	Number of cylinders	Oil charge	Weight	Pipe connections				CR-Steps -	Motor connection	Electrical data	
							DL Discharge line		SL Suction line				Max. Operating current	Max. Power consumption
			(m³/h)		dm^3	kg	mm	inch	mm	inch	%①	Volt②	Amp.③	kw③
2KES-05Y .. 2HES-2Y														
2KES-05Y	1	2KC-05.2	4.06	2	1.0	43	12	½	16	⅝	-	Δ/Y	4.9/2.8	1.5
2JES-07Y	1	2JC-07.2	5.21	2	1.0	43	12	½	16	⅝	-	220..240Y/ 380..420Y/ 3/50	6.4/3.7	1.9
2HES-1Y	2	2HC-1.2	6.51	2	1.0	44	12	½	16	⅝	-	265..290Y/	6.7/3.8	2.0
2HES-2Y	1	2HC-2.2	6.51	2	1.0	45	12	½	16	⅝	-	440..480Y/ 3/60	7.8/4.5	2.4
2GES-2Y .. 2FES-3Y														
2GES-2Y	1	2GC-2.2	7.58	2	1.0	45	12	½	16	⅝	-	220..240Y/	8.7/5.0	2.7
2FES-2Y	2	2FC-2.2	9.54	2	1.0	45	12	½	16	⅝	-	380..420Y/ 3/50 265..290Y/	9.2/5.3	2.9
2FES-3Y	1	2FC-3.2	9.54	2	1.0	47	12	½	16	⅝	-	440..480Y/ 3/60	10.7/6.1	3.4
2EES-2Y .. 2CES-4Y														
2EES-2Y	2	2EC-2.2	11.4	2	1.5	68	16	⅝	22	⅞	-	Δ/Y	10.4/6.0	3.3
2EES-3Y	1	2EC-3.2	11.4	2	1.5	71	16	⅝	22	⅞	-		13.4/7.5	3.8
2DES-2Y	2	2DC-2.2	13.4	2	1.5	68	16	⅝	22	⅞	-	220..240Y/ 380..420Y/ 3/50	13.4/7.5	4.0
2DES-3Y	1	2DC-3.2	13.4	2	1.5	71	16	⅝	22	⅞	-	265..290Y/ 440..480Y/ 3/60	15.0/8.6	4.6
2CES-3Y	2	2CC-3.2	16.2	2	1.5	70	16	⅝	22	⅞	-		15.8/9.1	5.0
2CES-4Y	1	2CC-4.2	16.2	2	1.5	70	16	⅝	22	⅞	-		17.4/10.0	5.6

TECHNICAL DATA

Compressor type	Motor version	BITZER Former Models	Displacement at 1450 min -1	Number of cylinders	Oil charge	Weight	Pipe connections DL Discharge line		Pipe connections SL Suction line		CR-Steps -	Motor connection	Electrical data Max. Operating current	Electrical data Max. Power consumption
			(m³/h)		dm³	kg	mm	inch	mm	inch	%①	Volt②	Amp.③	kw③
4FES-3Y .. 4CES-9Y														
4FES-3Y	2	4FC-3.2	18.1	4	2.0	82	16	⅝	22	⅞	50	Δ / Y 265..290Δ /440..480Y/3/60 220..240Δ /380..420Y/3/50	16.5/9.5	5.3
4FES-5Y	1	4FC-5.2				86							18.8/10.8	5.8
4EES-4Y	2	4EC-4.2	22.7	4	2.0	84	16	⅝	28	1⅛			21.2/12.2	6.9
4EES-6Y	1	4EC-6.2				86							23.7/13.6	7.6
4DES-5Y	2	4DC-5.2	26.8	4	2.0	86	22	⅞	28	1⅛			25.2/14.5	8.1
4DES-7Y	1	4DC-7.2				89							28.7/16.5	8.9
4CES-6Y	2	4CC-6.2	32.5	4	2.0	91	22	⅞	28	1⅛			30.8/17.7	9.7
4CES-9Y	1	4CC-9.2				91							35.1/20.2	11.3
4VES-6Y .. 4NES-20Y														
4VES-6Y	3	-	34.7	4	2.6	129	22	⅞	28	1⅛	50	PW ④ 380..420Y/3/50 440..480Y/3/60	9.4	6
4VES-7Y	2	4VCS-6.2				129							16.6	11
4VES-10Y	1	4VCS-10.2				139							19.9	12
4TES-8Y	3	-	41.3	4	2.6	134	28	1⅛	35	1⅜			11.4	7
4TES-9Y	2	4TCS-8.2				134							19.9	13
4TES-12Y	1	4TCS-12.2				141							25.1	14
4PES-10Y	3	-	48.5	4	2.6	139	28	1⅛	35	1⅜			12.9	8
4PES-12Y	2	4PCS-10.2				139			35	1⅜			22.7	14
4PES-15Y	1	4PCS-15.2				147			42	1⅝			28.2	16
4NES-12Y	3	-	56.2	4	2.6	141	28	1⅛	35	1⅜			14.9	9
4NES-14Y	2	4NCS-12.2				141			35	1⅜			26.6	17
4NES-20Y	1	4NCS-20.2				150			42	1⅝			33.2	19

TECHNICAL DATA

Compressor type	Motor version	BITZER Former Models	Displacement at 1450 min -1	Number of cylinders	Oil charge	Weight	Pipe connections				CR-Steps -	Motor connection	Electrical data	
							DL Dischargeline		SL Suctionline				Max. Operating current	Max. Power consumption
			(m³/h)		dm³	kg	mm	inch	mm	inch	%①	Volt②	Amp.③	kw③
4JE-13Y .. 4FE-35Y														
4JE-13Y	3	-	63.5	4	4.0	179	28	1⅛	42	1⅝	50	PW ④ 380..420YY/3/50 440..480YY/3/60	18.8	11
4JE-15Y	2	4J-13.2				190							30.8	19
4JE-22Y	1	4J-22.2				190							37.2	21
4HE-15Y	3	-	73.7	4	4.0	183	28	1⅛	42	1⅝			21.4	13
4HE-18Y	2	4H-15.2				190			42	1⅝			36.7	22
4HE-25Y	1	4H-25.2				194			54	2⅛			44	25
4GE-20Y	3	-	84.6	4	4.5	192	28	1⅛	54	2⅛			24.6	16
4GE-23Y	2	4G-20.2				192							43.9	27
4GE-30Y	1	4G-30.2				206							51.2	28
4FE-25Y	3	-	101.8	4	4.5	196	28	1⅛	54	2⅛			30.5	19
4FE-28Y	2					207							52.8	31
4FE-35Y	1					207							62.1	35
6JE-22Y .. 6GE-40Y														
6JE-22Y	3	-	95.3	6	4.75	213	35	1⅜	54	2⅛	66 altern. 33	PW ④ 380..420YY/3/50 440..480YY/3/60	26.6	16
6JE-25Y	2	6J-22.2				228							46.4	27
6JE-33Y	1	6J-33.2				231							53.2	30
6HE-25Y	3	-	110.5	6	4.75	224	35	1⅜	54	2⅛			31.3	19
6HE-28Y	2	6H-25.2				228							53.2	33
6HE-35Y	1	6H-35.2				235							64.4	36
6GE-30Y	3	-	126.8	6	4.75	228	35	1⅜	54	2⅛			38	23
6GE-34Y	2	6G-30.2				228							65.5	40
6GE-40Y	1	6G-40.2				238							73.9	42
6FE-40Y .. 6FE-50Y														
6FE-40Y	3	-	151.6	6	4.75	238	42	1⅝	54	2⅛	66 altern. 33	380..420YY/3/50 440..480YY/3/60 PW ④	48.5	27
6FE-44Y	2	6F-40.2				241						380..400YY/3/50	83.2	46
6FE-50Y	1	6F-50.2				241						440..460YY/3/60	96.2	51
8GE-60Y .. 8FE-70Y														
8GE-60(Y)	1	8CG-60.2	185	8	5.0	350	42	1⅝	76	3⅛	75 altern. 50	PW ④ 380..420DDY/3/50 440..480DDY/3/60	113	63
8FE-70(Y)	1	8FC-70.2	221	8	5.0	374	54	2⅛	76	3⅛			139	78

2-STAGE // LOW TEMPERATURE APPLICATION

Technical data
Compressors for drive

Compressor type	Displacement with 1450 min^{-1} LP m^3/h	Displacement HP m^3/h	Number of cylinder	Oil charge dm^3	Weight kg	Pipe connections DL Discharge line mm	DL inch	SL Suction line mm	SL inch	Motor connection	Electrical Data Max. operating current	Max. power consumption[3]	Starting current (locked rotor) ④
S4T-5.2(Y)	19,7	12,6	4	3	136	22	7/8	28	1 1/8	380 ..420Y/3/50 440 ..480 Y/3/60	14	6,9	39/68
S4N-8.2(Y)	28,0	17,9	4	3	141	22	7/8	28	1 1/8		17	9,7	49/81
S4G-12.2(Y)	42,3	27,0	4	4,5	180	28	1 1/8	35	1 3/8		24	13,8	69/113
S6J-16.2(Y)	63,5	31,8	6	4,75	209	35	1 3/8	42	1 5/8		31	18,1	81/132
S6H-20.2(Y)	73,6	36,9	6	4,75	220	35	1 3/8	42	1 5/8		37	21,5	97/158
S6G-25.2(Y)	84,5	42,3	6	4,75	233	35	1 3/8	42 54	1 5/8 ⑤ 2 1/8		43	24,9	116/193
S6F-30.2(Y)	101,1	50,5	6	4,75	234	35	1 3/8	42 54	1 5/8 ⑤ 2 1/8		51	31,9	135/220
S66J-32.2(Y)	2 x 63,5	2 x 31,8	2 x 6	9,5	411	2 x 35	1 3/8	2 x 42	1 5/8		2 x 31	2 x 18,1	2 x 81/132
S66H-40.2(Y)	2 x 73,6	2 x 36,9	2 x 6	9,5	433	2 x 35	1 3/8	2 x 42	1 5/8		2 x 37	2 x 21,5	2 x 97/158
S66G-50.2(Y)	2 x 84,5	2 x 42,3	2 x 6	9,5	459	2 x 35	1 3/8	2 x 42 2 x 54	1 5/8 ⑤ 2 1/8		2 x 45	2 x 24,9	2 x 116/193
S66F-60.2(Y)	2 x 101,1	2 x 50,5	2 x 6	9,5	461	2 x 35	1 3/8	2 x 42 2 x 54	1 5/8 ⑤ 2 1/8		2 x 53	2 x 30,1	2 x 135/220

HS.53 // HS.64 // HS.74 SERIES

Technical data

Compressor type	Motor version	Displacement 50 Hz	Displacement 60 Hz	Weight	Pipe connections				Capacity steps nominal	Motor connection	Max. operating current	Max. power consum.	Starting current (locked rotor)
					Discharge line		Suction line						
	①	m^3/h ②	m^3/h ②	kg	mm	inch	mm	inch					
HSK5343-30	1	84	101	170	42	$1^5/8$"	54	$2^1/8$"	100/90/70	400 V ±10% Δ/ΔΔ -3-50Hz 460 V ±10% Δ/ΔΔ -3-60Hz Part Winding	52	33	126/218
HSN5343-20	1			166					100/90/55		48	29	129/201
HSK5353-35	1	100	121	178	42	$1^5/8$"	54	$2^1/8$"	100/85/60		58	37	153/266
HSN5353-25	1			169					100/80/50		52	33	126/218
HSK5363-40	1	118	142	183	42	$1^5/8$"	54	$2^1/8$"	100/80/55		66	42	182/311
HSN5363-30	1			174					100/75/45		58	37	153/266
HSK6451-40	2	140	168	234	42	$1^5/8$"	54	$2^1/8$"	100/85/60		65	40	187/313
HSK6451-50	1			238					100/75/50		79	50	206/355
HSN6451-40	1			234							65	40	187/313
HSK6461-40	2	165	198	238	42	$1^5/8$"	54	$2^1/8$"	100/80/55		65	40	187/313
HSK6461-60	1			246					100/75/45		98	65	267/449
HSN6461-50	1			238							79	50	206/355
HSK7451-50	2	192	232	297	54	$2^1/8$"	76	$3^1/8$"	100/75/45		79	50	206/355
HSK7451-70	1			305					100/80/65		124	75	290/485
HSN7451-60	1			297							98	65	267/449
HSK7461-60	2	220	266	310	54	$2^1/8$"	76	$3^1/8$"	100/70/40		98	65	267/449
HSK7461-80	1			314					100/75/60		144	85	350/585
HSN7461-70	1			310							124	75	290/485
HSK7471-70	2	250	302	326	54	$2^1/8$"	76	$3^1/8$"	100/60/40		124	75	290/485
HSK7471-90	1			336					100/75/55		162	92	423/686
HSN7471-75	1			326							144	85	350/585

TEIDAR®

PRESSURE VESSEL SERIES

SUCTION LINE ACCUMULATOR

Introduction

In circulatory system, the refrigerant must be convert became gas before returning to compressor. So it has to separate gas and liquid before the refrigerant enters into the compressor. And let the gas refrigerant enters into the compressor will not cause strike. The liquid refrigerant evaporate slowly in the vessel, then enter the compressor after evaporation. In order to make the residual refrigerant oil come back to compressor, there is no hole in the bottom of tube in Accumulator which may let the oil come back. When the residual refrigerant in the system come into Accumulator, it will go back to compressor with gas refrigerant. Because of the protection from Accumulator, The life time of compressor can be longer and the circulatory system can run better.

Technic Parameter

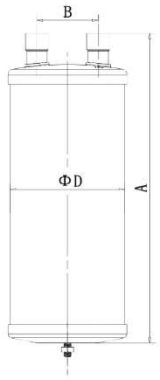
Refrigeration oil	R22/R134a/R404A/R407C/R502/R507	Medium temperature	−40 ~ +120℃
Max. working pressure	3000Kpa	Max. testing pressure	3600Kpa

Type choosing parameter

Type	The refrigeration oil volume based on below vaporize temperature						Refrigeration oil volume
	R22		R134a		R404A		
	−18℃	5℃	−18℃	5℃	−18℃	5℃	
TDQ−204	3.2	7.0	2.17	4.3	2.8	4.6	1.5L
TDQ−205	4.9	10.5	2.8	6.0	4.2	7.0	1.8L
TDQ−206	6.3	14.1	3.2	8.1	5.3	9.2	3.8L
TDQ−207	11.6	25.7	6.3	14.0	9.5	16.2	4.3L
TDQ−208	18.9	41.5	10.9	25.3	15.5	26.7	7.3L
TDQ−209	29.9	66.1	16.2	37.6	25.3	42.9	9.6L
TDQ−210	45.0	101.3	25.7	59.8	37.6	64.0	10.4L
TDQ−595	5.1	11.8	2.7	7.1	4.5	7.2	2.4L
TDQ−596	6.3	14.1	3.2	8.1	5.3	9.2	2.4L
TDQ−597	11.6	25.7	6.3	14.0	9.5	16.2	2.4L
TDQ−5126	6.3	14.1	3.2	8.1	5.3	9.2	3.3L
TDQ−5127	11.6	25.7	6.3	14.0	9.5	16.2	3.3L
TDQ−5137	11.6	25.7	6.3	14.0	9.5	16.2	3.5L
TDQ−5139	18.9	41.5	10.9	25.3	15.5	26.7	3.5L
TDQ−5179	18.9	41.5	10.9	25.3	15.5	26.7	4.7L
TDQ−51711	29.9	66.1	16.2	37.6	25.3	42.9	4.7L
TDQ−61411	29.9	66.1	16.2	37.6	25.3	42.9	6.0L
TDQ−62013	45.0	101.3	25.7	59.8	37.6	64.0	8.8L

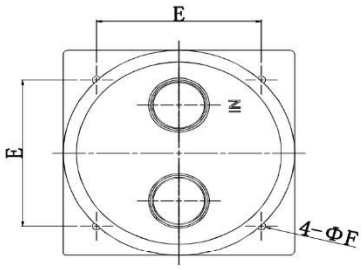
SUCTION LINE ACCUMULATOR

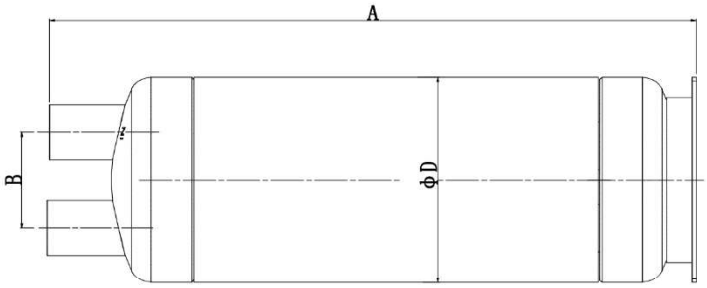
Type	Inlet and outlet	A (mm)	B (mm)	D (mm)
TDQ-204	1/2	254	52	102
TDQ-205	5/8	294	52	102
TDQ-206	3/4	316	75	140
TDQ-207	7/8	356	75	140
TDQ-208	1-1/8	450	85	159
TDQ-209	1-3/8	574	85	159
TDQ-210	1-5/8	624	85	159
TDQ-595	5/8	257	70	127
TDQ-596	3/4	257	70	127
TDQ-597	7/8	262	70	127
TDQ-5126	3/4	332	70	127
TDQ-5127	7/8	337	70	127
TDQ-5137	7/8	358	70	127
TDQ-5139	1-1/8	363	70	127
TDQ-5179	1-1/8	465	70	127
TDQ-51711	1-3/8	465	70	127
TDQ-61411	1-3/8	390	85	159
TDQ-62013	1-5/8	548	85	159

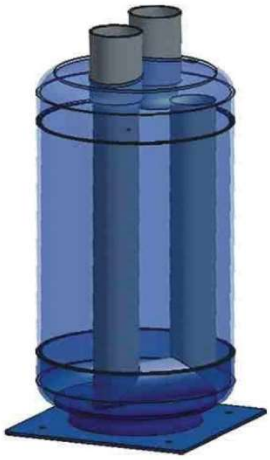


SUCTION LINE ACCUMULATOR

Type	ODF	A (mm)	B (mm)	D (mm)	E (mm)	F (mm)	Volume
TDQ-1817	2-1/8	540	100	219	200	10.8	18L
TDQ-2117	2-1/8	495	120	273	—	10.8	21L
TDQ-3521	2-5/8	610	173	325	274	12.5	35L
TDQ-7034	4-1/4	630	200	450	390	12.5	70L
TDQ-221	2-1/8	586	120	273	194	10.8	26L
TDQ-225	2-5/8	763	127	273	194	10.8	34L
TDQ-231	3-1/8	767	150	325	230	10.8	47.8L

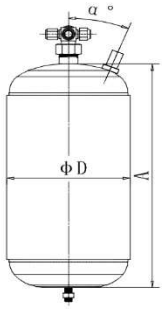


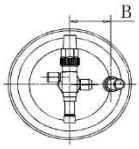




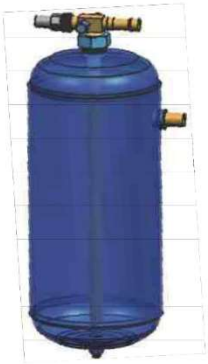
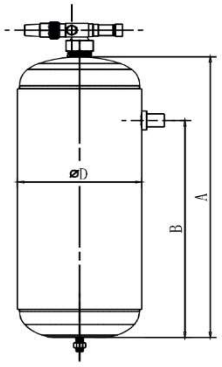
- Size "A" will be changed as of the base frame different.

VERTICAL RECEIVER





Type	ODF	A (mm)	B (mm)	D (mm)	α °	Volume
TDR-133	3/8	170	35	102	18.2°	1.1L
TDR-166	3/8	192	40	114	22.3°	1.6L
TDR-233	3/8	185	42	127	20°	2L
TDR-333	3/8	293	42	127	20°	3L
TDR-433	3/8	238	55	165	21°	4L
TDR-644	1/2	332	55	165	21°	6L
TDR-844	1/2	432	55	165	21°	8L
TDR-855	5/8	432	55	165	21°	8L
TDR-1055	5/8	322	75	219	17°	10.0L
TDR-1255	5/8	380	75	219	17°	12L
TDR-1455	5/8	435	75	219	17°	14L
TDR-1466	3/4	435	75	219	17°	14L
TDR-1677	7/8	492	75	219	17°	16L
TDR-1877	7/8	549	75	219	17°	18L
TDR-2077	7/8	606	75	219	17°	20L

Type	ODF	A (mm)	B (mm)	D (mm)	Volume
TDR-101J	3/8	200	132	89	1.0L
TDR-102J	3/8	258	181	127	2.9L
TDR-103J	3/8	290	203	127	3.2L
TDR-104J	1/2	348	257	165	6.2L
TDR-105J	5/8	414	320	165	7.5L
TDR-106J	3/4	600	495	165	11.2L
TDR-107J	7/8	700	585	165	13.2L

油分/可拆式式油分TDW OIL SEPARATOR/DEMOUNTABLE OIL SEPARATOR

简介 Introduction

冷媒压缩机在运转中,压缩机排气出口冷媒通常含有大量的冷冻机油，为了保证压缩机不致流失大量冷冻机油，及防止冷冻机油随着冷媒流向系统中影响冷凝器散发热功能，及蒸发器的制冷效果，所以在压缩机和冷凝器之间必须装一台油分离器，使冷冻机油和冷媒分离，让油自动回入压缩机曲轴箱内。回油装置是以油分离器内底部的浮球阀操作，再由高低压差原理一起完成。保证压缩机不缺油，以达到最好的制冷效果。

When compressor is in operation, the outlet of compressor always has lots of refrigerant oil. We need to install an oil separator between compressor and condenser to separate the refrigerant oil and refrigerants in order to prevent the compressor not lose too much refrigerant oil and prevent the refrigerant oil flow to system with refrigerants to interfere the condenser' s heat function and evaporator cooling function. Then the oil will flow back to the compressor crankcase. Oil-return device operates on the ball valve moving on the bottom of oil separator and the high-low voltage theory. The oil separator can ensure the sufficiency of oil in compressor and let the compressor reach its best cooling performance.

- 在安装油分离器之前，应该对它进行初始充油，使用的油与压缩机曲轴箱内的油一致
  We need to pre-charge the oil before installing oil separator. The oil we charged should be the same with the oil in the compressor crankcase.

技术参数 Technic parameter

制冷剂 Refrigeration oil	R22/R134a/R404A/R407C/R502/R507	介质温度 Medium temperature	-40℃~+120℃
最大工作压力 Max. working pressure	3100Kpa	最大试验压力 Max. testing pressure	4000 Kpa
储油量 Oil storage volume	55833→559011/ 5301→5306 600ml	569011→569417 /6303→6305 800ml	

选型参数 Type choosing parameter

类 型 Size		在下列蒸发温度时的制冷量（Kw） The refrigeration oil volume based on below vaporize temperature								
		R22			R134a			R404a		
		-40℃	-20℃	5℃	-40℃	-20℃	5℃	-40℃	-20℃	5℃
TDW-55824	TDW-5301	5.3	6.2	7.0	3.2	4.5	6.2	5.3	6.2	7.0
TDW-55855	TDW-5302	15.8	17.5	19.3	11.4	13.4	15.8	14.4	16.4	19.3
TDW-55877	TDW-5303	24.6	26.2	28.1	16.7	19.3	22.4	22.8	25.2	28.8
TDW-55889	TDW-5304	31.7	34.3	37.0	22.4	26.3	29.9	30.0	33.4	37.4
TDW-559011	TDW-5305	40.4	43.6	47.5	28.1	33.6	40.4	36.7	43.3	49.0
TDW-569011	TDW-6303	45.2	47.4	49.2	33.4	40.4	48.4	41.0	45.2	50.8
TDW-569213	TDW-6304	56.3	58.9	63.3	41.3	48.4	56.3	51.0	57.3	65.1
TDW-569417	TDW-6305	91.4	102.3	105.5	63.3	74.8	88.8	88.5	98.4	108.6

油分/可拆式式油分TDW OIL SEPARATOR/DEMOUNTABLE OIL SEPARATOR

三维数据 Three-dimensional data

型 号 Type	接口尺寸(in) Connection Size	A(mm)	B(mm)	C(mm)
TDW-55833	3/8	102	279	48
TDW-55824	1/2	102	279	48
TDW-55855A	5/8	102	338	48
TDW-55855	5/8	102	378	48
TDW-55877A	7/8	102	384	48
TDW-55877	7/8	102	460	48
TDW-55889A	1-1/8	102	414	48
TDW-55889	1-1/8	102	494	48
TDW-559011	1-3/8	102	524	48
TDW-569011	1-3/8	159	394	75
TDW-569213	1-5/8	159	480	75
TDW-569417	2-1/8	159	485	75

可拆式油分TDW DEMOUNTABLE OIL SEPARATOR

三维数据 Three-dimensional data

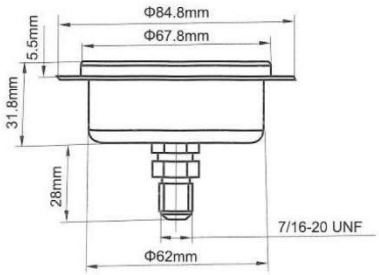
型 号 Type	接口尺寸(in) Connection Size	A(mm)	B(mm)	C(mm)
TDW-5301	1/2	102	275	48
TDW-5302	5/8	102	370	48
TDW-5303	7/8	102	455	48
TDW-5304	1-1/8	102	490	48
TDW-5305	1-3/8	102	520	48
TDW-5306	1-5/8	102	525	48
TDW-6303	1-3/8	159	404	75
TDW-6304	1-5/8	159	490	75
TDW-6305	2-1/8	159	495	75

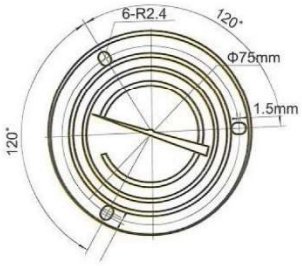
Oil Filled Compound Gauge

BRLN-OG3.8H-BH

BRLN-OG1.8L-BH

MODEL	SPECIFICATION	RANGE
BRLN-OG-1.8L-BH-14SAE	GAUGE-R22,134,404,407-OIL	-30 ~ +250 PSIG
BRLN-OG-3.8H-BH-14SAE	GAUGE-R22,134,404,407-OIL	-30 ~ +500 PSIG
BRLN-OG-1.8L-BH-14SAE-410	GAUGE-R410-R32-OIL	-30 ~ +550 PSIG
BRLN-OG-3.8H-BH-14SAE-410	GAUGE-R410-R32-OIL	-30 ~ +800 PSIG





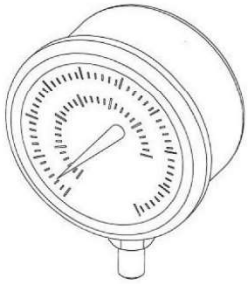
Item	Specification
Case	stainless steel #304
Window	plexiglass
Ring	stainless steel #304
Socket	1/4 SAE or 1/8 NPT, back, OT 58 brass
Elastic element	phosphor bronze
Movement	gearing, OT 59 brass
Dial	white
Pointer	black oxidized aluminium
Accuracy	cl. 1,6
Ambient-T	+15 / +65°C / +59/149 °F
Process fluid-T	max. +65°C / +149 °F
Process pressure	max. 75% of full scale value
Over pressure	25% of full scale value
Blow-out plug	EPDM
Protection	IP65 according IEC29
Options on request	. scales for all marketable refrigerants . dry version without glycerine . other connectors

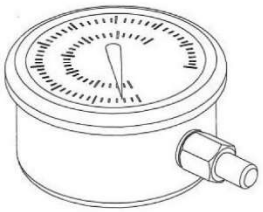
Oil Filled Compound Gauge

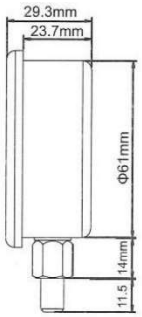
BRLN-OG3.8H-BT

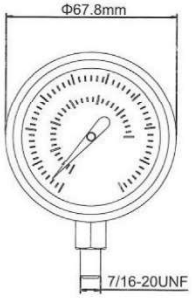
BRLN-OG1.8L-BT

MODEL	SPECIFICATION	RANGE
BRLN-OG-1.8L-BT-14SAE	GAUGE-R22,134,404,407-OIL	-30 ~ +250 PSIG
BRLN-OG-3.8H-BT-14SAE	GAUGE-R22,134,404,407-OIL	-30 ~ +500 PSIG
BRLN-OG-1.8L-BT-14SAE-410	GAUGE-R410-R32-OIL	-30 ~ +550 PSIG
BRLN-OG-3.8H-BT-14SAE-410	GAUGE-R410-R32-OIL	-30 ~ +800 PSIG









Item	Specification
Case	stainless steel #304
Window	plexiglass
Ring	stainless steel #304
Socket	1/4 SAE or 1/8 NPT, back, OT 58 brass
Elastic element	phosphor bronze
Movement	gearing, OT 59 brass
Dial	white
Pointer	black oxidized aluminium
Accuracy	cl. 1,6
Ambient-T	+15 / +65°C / +59/149 °F
Process fluid-T	max. +65°C / +149 °F
Process pressure	max. 75% of full scale value
Over pressure	25% of full scale value
Blow-out plug	EPDM
Protection	IP65 according IEC29
Options on request	. scales for all marketable refrigerants . dry version without glycerine . other connectors

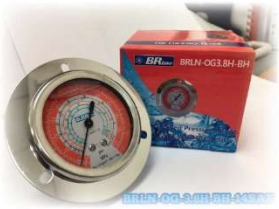
Manifold Gauge

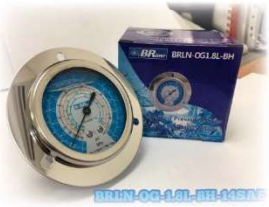
Manifold Gauge with Hose

- Special material sheath with anti-collision performance.
- High precision pressure gauge with class 1.6 accuracy.
- Metal-embedded designed valve to increase strength.
- ชุดเกจวัดแรงดันสูงสุดถึง 800 PSI
- ตัวเรือนเกจครอบด้วยวัสดุเนื้อหนาชนิดพิเศษกันกระแทก
- ความเที่ยงตรง **CLASS 1.6**

แบบกล่อง

แบบในกล่องพลาสติคใส





Model	Description
แบบกล่อง BH = BEHIDE CONNECTING BT = BOTTOM CONNECTING	
BRLN-OG-1.8L-BH-14SAE	GAUGE-R-22,134,404,407-OIL
BRLN-OG-1.8L-BH-14SAE-410	GAUGE-R410,R32 OIL
BRLN-OG-1.8L-BT-14SAE	GAUGE-R-22,134,404,407-OIL
BRLN-OG-3.8H-BH-14SAE	GAUGE-R-22,134,404,407-OIL
BRLN-OG-3.8H-BH-14SAE410	GAUGE-R410,R32 OIL
BRLN-OG-3.8H-BT-14SAE	GAUGE-R-22,134,404,407-OIL
แบบในกล่องพลาสติคใส BLISTER CARD	
BRLN-SH-M40348A	GAUGE-R22,134,404
BRLN-SH-M40348B	GAUGE-R410/R-32

BRline

VACUUM PUMP & MANIFOLD GAUGE

VP245

VP260

BRline

MODELS & SPECIFICATIONS

New Refrigerant Series vacuum pumps especially for all refrigeration

- High quality solenoid valve. (มีโซลินอยล์วาล์วป้องกันอากาศย้อนกลับ)
- Automatic disconnection with HVAC system while in interruption of elecricity (ตัดการเชื่อมต่อกับระบบโดยอัตโนมัติเมื่อไฟฟ้าดับ)
- Special material of the seal

Dual Stage (with solenoid vale)

Item No.		VP245(2VP-2)	VP260(2VP-3)	VP280(2VP-4)	VP2100(2VP-5)
Voltage	V/Hz	220/50	220/50	220/50	220/50
Flow Rate	CFM	4.5	6	8	10
	l/min	128	170	226	283
Ultimate Vacuum	Pa	3×10^{-1}	3×10^{-1}	3×10^{-1}	3×10^{-1}
	microns	25	25	25	25
Stage		2	2	2	2
Power	HP	1/2	3/4	1	1
Inlet Port	Flare	1/4"	1/4"	1/4"	1/4"
Oil Capacity	ml	350	700	600	700
Dimensions	mm	320x134x232	370x140x250	370x140x250	390x140x250
Weight	kg	11.8	15	15	16

Manifold Gauge with Hose

- Special material sheath with anti-collision performance. (ตัวเรือนเกจครอบด้วยวัสดุเนื้อหนาชนิดพิเศษกันกระแทก)
- High precision pressure gauge with class 1.6 accuracy.(ความเที่ยงตรง CLASS 1.6)
- Metal-embedded designed valve to increase strength.
- ชุดเกจวัดแรงดันสูงสุดถึง 800 PSI

Model	MG-2-R22	MG-2-R410A	MG-2-R134a
Refrigerants	R22	R410A	R134a
Pressure Scale	0-400psi 0-140psi	0-800psi -30-500psi	0-400psi 0-140psi
Gauge Diamete	68 mm.	68 mm.	68 mm.
- Hose Length 3 x 48",both side of charging hose are 1/4" for red,yellow and blue			

INTRODUCING

EXPERIENCE THE POWER OF A TOUCH SENSITIVE KEYPAD

BL-7524T

- **Larger and brighter display**
  20% bigger than most controllers
- **Graphic Iconic display**
- **Minimum ON time**
  helps in oil return back to compressor

FRONT LOADING

Side Lock not required if front loading screws used.

TOUCH

The keypad is touch sensitive, without mechanical movements. It delivers a higher level of reliability with enhanced moisture and dust proof capability.

COLOUR

Two display colour options available: Red and White

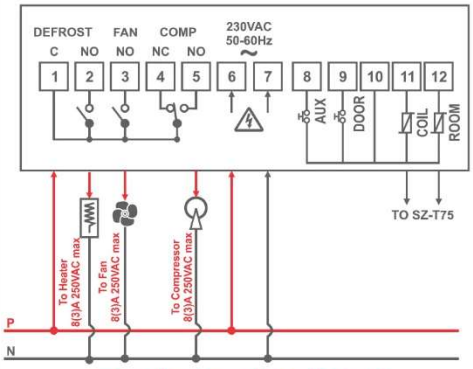
BRline

Experience the power of a TOUCH SENSITIVE KEYPAD on our new controllers

- Touch Sensitive Technology
- Higher IP rating (front)
- Smooth surface, easy to clean for better hygiene
- User can set own default values
- Graphic icon display
- Max / Min temp logging
- Display size 20% bigger than most controllers
- Password Function
- Minimum On Time to ensure return oil to the compressor after startup
- Display Delay

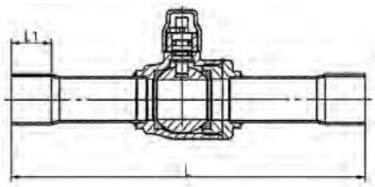
TECHNICAL DATA	
Housing	: Black ABS Plastic, Auto-extinguish
Front Cover	: Polycarbonate Plastic V0 Grade
Dimensions	: Frontal : 94 X 35.3 mm, Depth : 71mm
Panel Cutout	: 29 X 71mm
Mounting	: Flush panel mounting with fasteners
Protection	: IP65 Front (with gasket)
Connections	: Screw terminal blocks. ≤ 2.5sq mm terminal only.
Display	: 3 X 17mm 7 segment display & 8 LEDs for Indication
Data storage	: Non-volatile EEPROM memory
Power input	: 230 Vac ±15 % , 50-60Hz Standard. Others on request.
Relay output	: All relay 8(3)A,250VAC
Operating temp.	: 0°C to 60°C (non-condensing)
Operating humidity	: 20% to 85% (non-condensing)
Storage temp	: -25°C to 60°C (non-condensing)
Measuring Range	: -40.0°C to 99.9°C (when rS = 0.1) -40°C to 99°C (rS = 1)
Input	: 2 NTC probe, SZ-T75
Resolution	: +/- 1°C / 0.1°C
Accuracy	: +/- 1°C

Suggested Wiring



Caution:Wiring for 230Vac load only

BV SERIES BALL VALVE



Features

- No pressure drop in flow.
- Only turn 1/4 circle to make valve full open or full close.
- Turning stop for full open or full close.
- Two-direction flow is available.
- Argon arc welded structure.
- Explosion-proof valve stem design.
- Modified PTFE sealing.
- Inside liquid accumulation is avoided.
- Could be mounted on the contral panel.

- Known as one manually regulated shut-off valve and perfect for its sealing performance, Model BV Ball Valve is a through-type with maximum flow rate and wide scope of operating temperature. It is applied to dual-direction flow and used on the liquid, air suction and hot gas line of the freezer, cold store and air conditioning unit.

Specification

Appicable Refrigerant	CFC . HCFC. HFC. HC
Appicable Medium Temperature	-40°C ~ +150°C
(PS/MWP) Max. Opening Pressure	45bar (653psig)
Max. Allowable Pressure	65bar (943psig)
Yearly leakage of Refrigerant	≤ 2g R22/a
Certification	UL

Type	Connection Size(in)	L (mm)	L1 (mm)	Type	Connection Size(in)	L (mm)	L1 (mm)
BV-06	1/4"	144	7	BV-06S	1/4"	144	7
BV-10	3/8"	144	8	BV-10S	3/8"	144	8
BV-12	1/2"	160	11	BV-12S	1/2"	160	11
BV-16	5/8"	160	15	BV-16S	5/8"	160	15
BV-18	3/4"	186	20	BV-18S	3/4"	186	20
BV-22	7/8"	186	20	BV-22S	7/8"	186	20
BV-28	1-1/8"	214	23	BV-28S	1-1/8"	214	23
BV-35	1-3/8"	248	25	BV-35S	1-3/8"	248	25
BV-42	1-5/8"	280	28	BV-42S	1-5/8"	280	28
BV-54	2-1/8"	304	33	BV-54S	2-1/8"	304	33
BV-67	2-5/8"	305	37	BV-67S	2-5/8"	305	37
BV-79	3-1/8"	380	40	BV-79S	3-1/8"	380	40
BV-89	3-1/2"	410	40	BV-89S	3-1/2"	410	40
BV-92	3-5/8"	410	40	BV-92S	3-5/8"	410	40

Two types of BV ball valve are available :with and without the charging port . The part number which with "s" has the charging port.

FLARING TOOL - CUTTER
CONDENSER FIN COMB

SANH-CT-275

SANH-CT275 : Flaring & Swaging Tool Kit

Description

- Flares and swages. Converts quickly. Screw-type feed. Ideal for use in close quarters.
- Two bars included cover 9 sizes. Swivel-type swaging adapters and flaring cone are hardened steel chrome-finished for easy operation.
- Self-centering, slip-on forged steel yoke.
- Flares 1/8", 3/16",1/4",5/16",3/8",7/16",1/2",5/8"&3/4" O.D. Include 5 swage adapters that swage 7 tube sizes 3/16", 1/4",5/16", 3/8", 1/2", 5/8",3/4" O.D.

SANH- CT-277

SANH-CT-277 : Copper Tube Flaring Tools Refrigeration Tool Kit

Description

- Easy operation ,save time and energy.
- The special cone eccentric revolution allows the internal opening gradually and form 45°accurate and regular flare without effort , preventing tube from sliding down. Therefore, keep the flare face to be smooth, uniform without scratching.
- Eccentric cone will be rebound automatically after the work is finished, make the idle top head in revolution again for 1-2 times and have the flare face in friction to make it prettier.

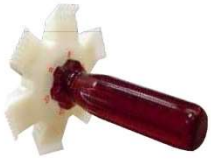
Number : CT-277
CT-275 45°Flaring Tool& 5 Swage Adapters.
CT-274 Tube Ctter 1/8"~1-1/8"(4~28mm).

SANH-CT274

SANH-CT-274 : Heavy Tube Pipe Cutter

Description

- For 1/8" to 1-1/8"(3-28mm).
- Ratchet feed mechanism speeds up cutting operation.
- Extra wide rollers with flare cut-off groove stablize tubing.
- Spare cutiing wheel included under handle cap.
- Light weight alumnium alloy body.



CT-351 Fin Straightener

CONDENSER FIN COMB

Cleans and straightens condenser and evaporator fins. Six sided head for 8, 9, 10, 12, 14 and 15 fins per inch applications.

Mastercool Inc.
"World Class Quality"

90067 7.5 CFM VACUUM PUMP (TWO STAGE)

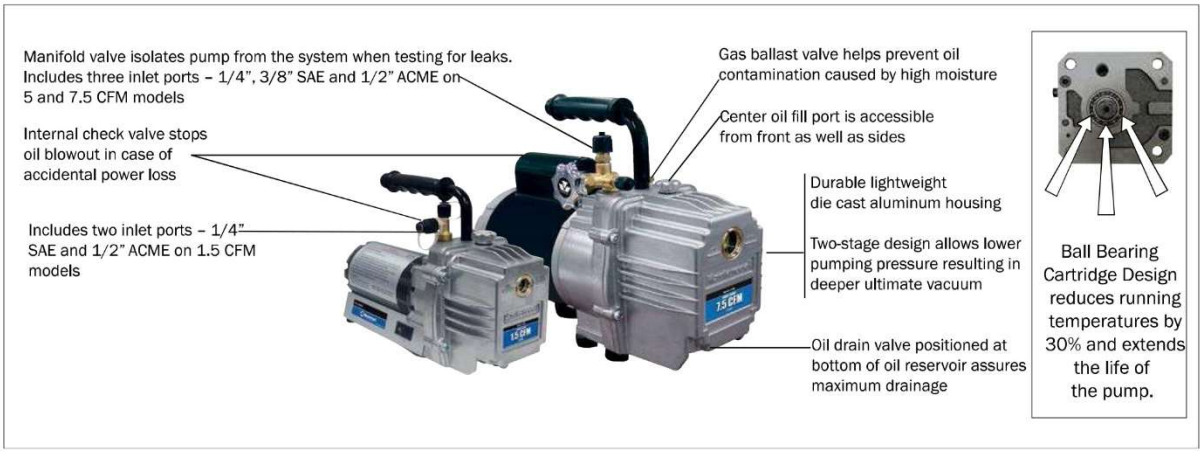
2 STAGE ELIE BALL BEARING DESIGN VACUUM PUMPS

A good quality vacuum pump is an integral tool for complete A/C service.
Mastercool vacuum pumps are durable and time tested.
They stand up to the most grueling conditions and will provide years of reliable service.
Mastercool offers a complete selection of pumps. Regardless of your service requirements,
Mastercool has a model for your applications.

VACUUM PUMP (TWO STAGE) 7.5 CFM

SPECIFICATIONS:

No. of Stages	:	2
Free Air Displacement	:	7.5 CFM
Ultimate Vacuum	:	25 Microns
Pump Motor	:	1/2 HP
Pump Speed	:	1725 RPM
Electrical Specs	:	110 V/60 Hz
Shipping Weight	:	35.5 lbs (16 kg)
Dimensions in cm	:	41 x 15.5 x 27.5 x 24



LEVER STYLE TUBE BENDERS

Open side design slips over tube at any point. Makes smooth short radius bends up to 180° with minimum effort. Calibrated to show angle of bend. Easy 90° start requires much less effort to make fast and accurate bends. Each tool bends one size.

MODEL	OUTSIDE DIAMETER OF TUBING	NOMINAL SIZE	RADIUS TO CENTER OF TUBE
70061	1/4"	1/8"	9/16"
70062	5/16"		11/16"
70063	3/8"	1/4"	15/16"
70064	1/2"	3/8"	1 1/2"
70065	5/8"	1/2"	2 1/4"
70066	3/4"	5/8"	3"
70067	7/8"	3/4"	3"

70070-RD REVERSE DIRECTION BENDING ADAPTER

Bends: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8" O.D. tubing

ONE NAME.COUNTLESS APPLICATIONS.

Every day around the world, Carlyle compressors are working quietly and efficiently in a wide range of challenging enviroments. While system requirements very, they do share one thing in common - carlyle is the name customer in each area turn to for efficient, reliable compressor colutions.

The future of screw compressor technology is here.

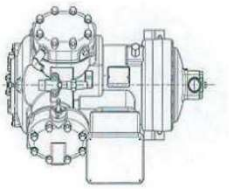
Specialities :

REGARDLESS OF THE APPLICATION,CARLYLE HAS YOU COVERED.

When you have one of the industry's broadest product line, a proven history of reliability and a commitment to innovation, there are few challenges you can't solve. At Carlyle, we 're capable of meeting the needs of a wide range of customers - including those with needs that fall outside of traditional cooling and compressor applications. These include :

- Environmental chambers
- Specialty air conditioning
- Ultra-low pharmaceutical applications

These are just a few examplesof unique areas in which customers are turning to us for advanced compressor technologies. If you have a specialized application, we'd like to talk with you about how we can put our reputation to work to meet your needs.



06D & 06E SEMI -HERMETIC COMPRESSOR OIL LESS -HIGH TEMP

Model	Motor HP	No. of Cylinder	Electric Unload	Oil Charge Ltr	Weight kgs	Discharge Valve	Suction Valve	Price Baht
Electrical : 400/460-3Phase - 50/60 Hz								
06DA3280BC0601	10	6	-	3.80	143.00	1-1/8"	1-3/8"	156,000.-
06DF3280BC0601	10	6	1	3.80	143.00	1-1/8"	1-3/8"	162,000.-
06DA5370BC0601	15	6	-	3.80	147.00	1-1/8"	1-5/8"	165,000.-
06DF5370BC0601	15	6	1	3.80	147.00	1-1/8"	1-5/8"	171,000.-
06EA250611	20	4	-	6.60	195.00	1-1/8"	1-5/8"	168,000.-
06E2250611	20	4	1	6.60	195.00	1-1/8"	1-5/8"	188,000.-
06EA265611	25	6	-	9.00	220.00	1-3/8"	1-5/8"	178,000.-
06E2265611	25	6	1	9.00	220.00	1-3/8"	1-5/8"	198,000.-
06EA275611	30	6	-	9.00	222.00	1-3/8"	2-1/8"	189,000.-
06E6275611	30	6	1	9.00	222.00	1-3/8"	2-1/8"	210,000.-
06EA299611	40	6	-	9.00	236.00	1-5/8"	2-1/8"	210,000.-
06E6299611	40	6	1	9.00	236.00	1-5/8"	2-1/8"	230,000.-

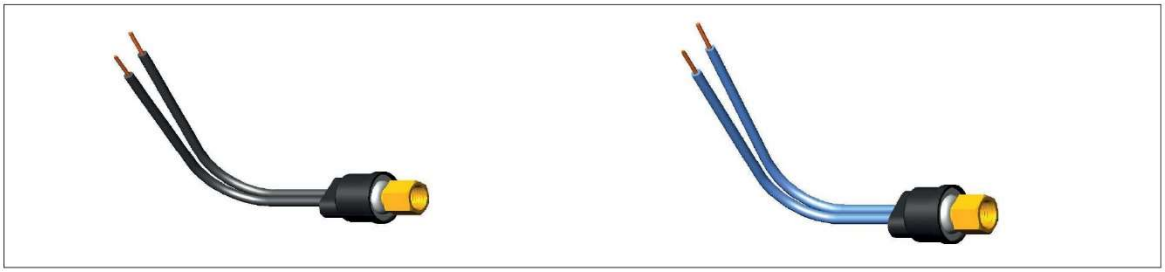
05F & 05H OPEN - DRIVE RECIPROCATING COMPRESSOR - OIL LESS

Model	Rating Tons R-12	R-22	R-502	No.of Cylinder	Min speed for unloader operate	Oil Charge Ltr	Weight kgs	Price Baht
Electrical : 400/460-3Phase - 50/60 Hz								
5F20S-219	5	10	10	2	600	2.40	79.40	435,000.-
5F30S-219	7.5	15	15	3	700	2.60	97.50	508,000.-
5F40S-219	10	20	20	4	800	5.70	161.00	557,000.-
5F60S-219	15	25	25	6	900	6.20	181.00	683,000.-
5H40S-219	25	40	40	4	800	8.50	277.00	732,000.-
5H46S-219	40	60	60	4	800	8.50	277.00	1,138,000.-
5H60S-219	40	60	60	6	900	9.90	361.00	1,347,000.-
5H66S-219	50	75	75	6	900	9.90	361.00	1,347,000.-
5H80S-219	50	75	75	8	1100	19.40	506.00	1,374,000.-
5H86S-219	75	100	100	8	1100	19.40	506.00	1,374,000.-
5H120S-219	75	125	125	12	900	28.90	717.00	1,944,000.-
5H126S-219	100	150	150	12	900	28.90	717.00	1,944,000.-

PRESSURE SWITCH

FEATURES & BENEFITS

- Custom Engineered Solutions
- Hermetically Seald Sensor
- Environmentally Sealed Leads
- Single Pole ,Single Throw
- Automatic Rset Pressure Switch
- Life Cycles 100,000 cycles
- Burst Pressure > or = 5000 PSI



Low Pressure Switch

MODEL	DESCRIPTION	PRESSURE PSI		CABLE LENGTH	REMARK
		ON	OFF		
TTL-PA37	LOW PRESSURE SWITCH	60	30	1500 mm.	R22
PS021-0004L	LOW PRESSURE SWITCH	115	65	1000 mm.	R410A
PS021-0006L	LOW PRESSURE SWITCH	22	7	1000 mm.	R22

High Pressure Switch

MODEL	DESCRIPTION	PRESSURE PSI		CABLE LENGTH	REMARK
		ON	OFF		
TTL-PB39	HIGH PRESSURE SWITCH	276	396	1500 mm.	R22
TTL-PB40	HIGH PRESSURE SWITCH	270	360	1500 mm.	R22
PS021-003H	HIGH PRESSURE SWITCH	420	600	1000 mm.	R410

VLV Series

2 - way & 3 - way Motorized Valves

Carrier VLV series motorized valves are used to control the supply of chilled or hot water in fan coilunits to maintain room temperature.

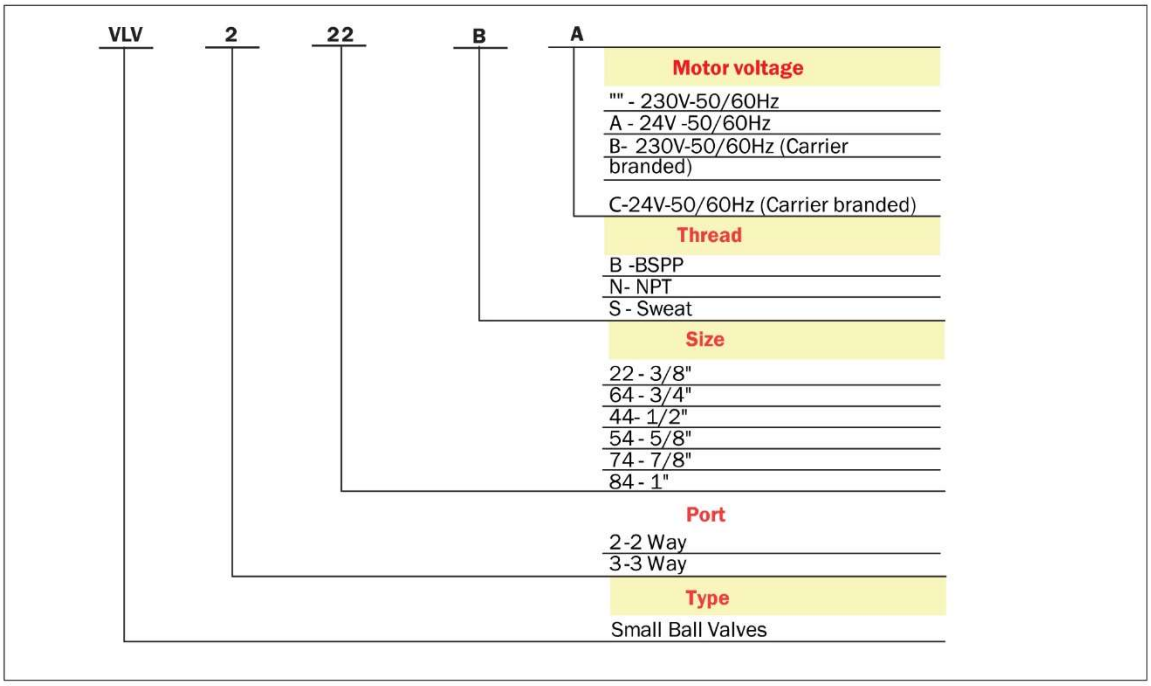
The valves are normally closed. They are reliable, with long life and capable of operating in high temperature environments.

FEATURES

- On/Off type 2-way normally closed and 3-way diverting
- Forging Brass Body • Stainless Base with Aluminum Shell
- Fully enclosed one-way hysteresis synchronous motor, with spring return and water proof functionality
- Efficient Power Consumption and less noise
- Long lasting, reliable and quiet
- Designed to withstand high temperatures & harsh environments
- BSPP/NPT connection
- CE Standard

SPECIFICATIONS

Power supply	:	220Vac, 110Vac, 24Vac
Pressure	:	1.6Mpa
Valve Action Tim	:	Open < 10s, Return < 6s
Power Consumptio	:	< 7W
Media Temperatur	:	0~90˚C
Working Environmen	:	5~60˚C , 10~95%RH
Weight	:	0.95kg (Net),0.99kg(Gross)
Dimensions	:	11.6x10.7x7.2mm(WXHXD)



SUPERLON® CLASS 1 product description

Superlon Class 1 insulation is a flexible elasto eric nitrile foa ed rubber en ineered and desi ned specifically to control condensation and effectively prevents ener y loss. Its ain uses are for insulatin pipeworks for air conditionin ductin s, chilled water lines and refri erated pipes. Superlon Class 1 can also be used for hot water and heatin syste s to prevent heat loss.

With ore than 20 years of experience in anufacturin nitrile foa rubber, Superlon delivers ut ost quality alon with pro pt reliable services.

Management Systems

Our on- oin quality assess ents for ISO 9001 quality ana e ent syste s and ISO 14001 environ ental ana e ent syste s ensure that we eet custo er require ents.

Eco Friendly

Superlon's insulation's manufacturing process are produced without CFCs and HCFCs. Further ore it does not contribute to lobal war in and has no ozone depletin potential.

CFC FREE

DUST & FIBRE FREE

LOW VOCs

No mould growth

The inherent closed cell structure and hi h water vapour per eability inhibits ould rowth. With no vapour barrier jacketing needed, Superlon's smooth skin does not trap dust.

Health Friendly

Superlon is for aldehyde free and also low VOC ensurin that our products are not hazardous to health and safe for buildin s.

Superlon also does not contain and dusts and fibres even when cuttin into shapes and fittin s. This safe uards any sy pto s re ardin indoor air quality.

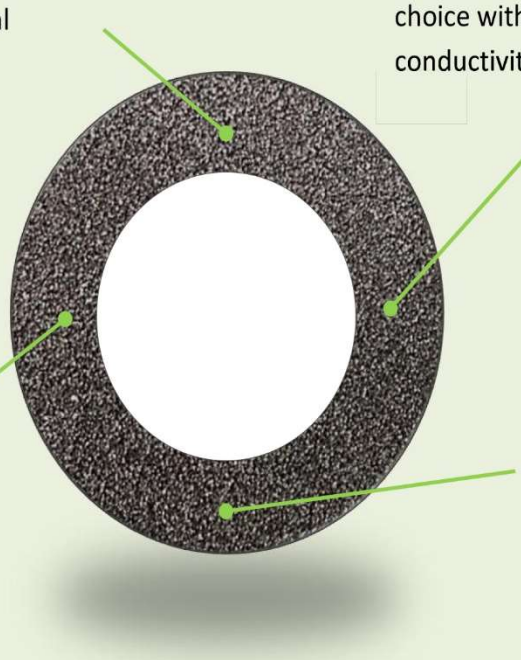
Superlon Insulation Characteristics

Closed Cell Structure

Closed cell structure alon with a lower density prevents ther al brid in and ini ises heat ains/losses.

Low Thermal Conductivity

Superlon is the best ener y savin choice with a low ther al conductivity of $\lambda_{20^\circ C} \leq 0.036$ W/m-K.



Low Water Absorption

Low water absorption of ≤ 0.2% ensures long term ther al conductivity stability so that it can continue to conserve ener y and prevent surface condensation.

Low Water Vapour Permeability

Unlike other products in the arket, Superlon does not need a vapour barrier such as a silver jacketin as the product itself has very low water per eability and a oisture resistance factor of $\mu \geq 7{,}000$.

Technical Data

	Values				Test Methods
Material	Nitrile Foamed Rubber				
Cell Structure	Closed Cell				
Density	40kg/m³ -70kg/m³				
Service Temperature	-50°C to 105°C (85°C for flat surfaces)				
Surface Spread of Flames	Class 1				BS 476 Part 7
Reaction to Fire	Self-Extinguishing, Does not Drip				
Thermal Conductivity	Mean Temp	0°C	20°C	40°C	ASTM C518
	W/m·K	≤ 0.034	≤ 0.036	≤ 0.038	
	Btu ▪ in/hr ▪ ft²	≤ 0.24	≤ 0.25	≤ 0.27	
Water Vapour Permeability	≤ 2.9 x 10^{-14} kg/Pa.m.s				ASTM E96
	μ ≥ 7000				
Water Absorption by Volume	≤ 0.2%				ASTM C209
Ozone Resistance	Good				
Corrosion and Mould Resistance	No Corrosion				
Health and Environment	Dust & Fibre Free and CFC Free, Zero ODP & GWP				

Insulation Pipe (pieces per Carton)

Internal Diameter		Insulation Wall Thickness							
		1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Inches	mm	6	10	13	19	25	32	38	50
1/4"	6	250	156	110	49	30			
3/8"	10	200	120	90	42	30			
1/2"	13	150	100	72	36	24	12	9	6
5/8"	16	120	90	63	36	20	12	9	6
3/4"	19	100	72	56	30	20	12	9	6
7/8"	22	90	64	48	25	18	9	9	6
1"	25	80	56	42	20	16	9	9	6
1 1/8"	28	72	49	36	20	16	9	9	6
1 1/4"	32	56	42	30	20	15	9	9	4
1 3/8"	35	48	36	30	16	12	9	9	4
1 1/2"	38	42	34	25	16	12	9	8	4
1 5/8"	42		30	25	16	12	9	8	4
1 7/8"	47		28	20	15	10	8	6	4
2"	51		24	20	12	9	8	6	4
2 1/8"	54		21	20	12	9	8	6	4
2 1/4"	57		21	20	12	9	6	6	4
2 3/8"	60		20	18	12	9	6	6	3
2 1/2"	64		18	15	9	8	6	6	3
2 5/8"	67		18	15	9	8	6	6	3
2 7/8"	73		18	13	9	8	4	4	3
3"	76		18	12	8	8	4	4	3
3 1/8"	80		16	12	8	6	4	4	
3 1/2"	89		16	12	8	6	4	4	
4"	102		14	12	6	6			
4 1/8"	105		14	12	6	5			
4 1/4"	108		14	12	6	5			
4 1/2"	114		14	12	6	4			
5"	127		10	9	6	4			
5 1/8"	130		10	9	6	3			
5 1/4"	133		10	9	6	3			
5 1/2"	140		10	8	6	3			

Continuous Rolls

Thickness		Size	
Inches	mm	Feet	Metres
1/8"	3	4' x 30'	1.22 x 9.14
1/4"	6	4' x 30'	1.22 x 9.14
3/8"	10	4' x 30'	1.22 x 9.14
1/2"	13	4' x 30'	1.22 x 9.14
5/8"	16	4' x 30'	1.22 x 9.14
3/4"	19	4' x 30'	1.22 x 9.14
1"	25	4' x 30'	1.22 x 9.14
1 1/4"	32	3.29' x 30'	1 x 9.14
1 1/2"	38	3.29' x 30'	1 x 9.14
2"	50	3.29' x 6.57'	1 x 2

Insulation Pre-cut Sheets

Thickness		Size		Pcs
Inches	mm	Feet	Metres	Carton
1/8"	3	4' x 3'	1.22 x 0.914	80
1/4"	6	4' x 3'	1.22 x 0.914	40
3/8"	10	4' x 3'	1.22 x 0.914	26
1/2"	13	4' x 3'	1.22 x 0.914	20
5/8"	16	4' x 3'	1.22 x 0.914	16
3/4"	19	4' x 3'	1.22 x 0.914	14
1"	25	4' x 3'	1.22 x 0.914	10
1 1/4"	32	4' x 3'	1.22 x 0.914	8
1 1/2"	38	4' x 3'	1.22 x 0.914	7

- Can be customised to single or double skin
- Adhesive and aluminium jacketing available in the same sizes as above
- Sizes can be customised, contact Superlon sales for more information

Standard Insulation Sizes

insulflex® Single Insulation Tubing

Nominal Insulation Size (ID)		Copper Pipe Size (OD)		Iron Pipe Size (IPS)	Quantity: Pcs Per Carton							
					Thickness							
mm	Inch	mm	Inch	Inch	6mm	9mm	13mm	19mm	25mm	32mm	38mm	50mm
6	1/4"	6	1/4"	-	250	168	100	48	30			
10	3/8"	10	3/8"	-	200	120	90	36	30			
13	1/2"	13	1/2"	1/4"	150	100	70	30	28	14	9	6
16	5/8"	16	5/8"	3/8'	120	90	63	30	24	14	9	6
19	3/4"	19	3/4"	-	100	72	56	26	20	14	9	6
22	7/8"	22	7/8"	1/2'	90	65	42	24	20	14	9	6
25	1"	25	1"	-	80	49	36	20	18	12	9	6
28	1 1/8"	28	1 1/8"	3/4'		49	36	20	18	12	9	6
32	1 1/4"	32	1 1/4"	-		42	30	20	16	12	9	4
35	1 3/8"	35	1 3/8"	1"		36	30	18	15	12	9	4
38	1 1/2"	38	1 1/2"	-		36	28	16	12	10	8	4
42	1 5/8"	42	1 5/8"	1 1/4"		30	25	16	12	10	8	4
48	1 7/8"	48	1 7/8"	1 1/2"		28	20	12	10	9	6	4
51	2"	51	2"	-		24	20	12	9	8	6	4
54	2 1/8"	54	2 1/8"	-		20	18	12	9	6	6	4
60	2 3/8"	60	2 3/8"	2"		20	18	9	9	6	6	4
64	2 1/2"	64	2 1/2"	-		18	15	9	8	6	6	3
67	2 5/8"	67	2 5/8"	-		18	13	8	8	6	6	3
73	2 7/8"	73	2 7/8"	2 1/2"(ASTM)		18	13	8	8	6	4	3
76	3"	76	3"	2 1/2"(B.S.)		18	12	8	8	6	4	3
80	3 1/8"	80	3 1/8"	-		15	12	6	6	5	4	
89	3 1/2"	89	3 1/2"	3"		15	12	6	6	5	4	
102	4"	102	4"	-		13	12	6	5	5		
114	4 1/2"	114	4 1/2"	4"		13	10	6	5	5		

Standard Carton Size : 6 ft Length - 1905mm x 400mm x 330mm (75in x 16in x 13in)

insulflex® Insulation Sheet

Sheet Pre Cut						
Nominal Thickness		Size Per Roll		No of Sheets per Carton	Total Area Per Roll	
mm	Inch	m	ft		m²	ft²
3	1/8	1.22 x 0.914	4 x 3	80	89.20	960
6	1/4	1.22 x 0.914	4 x 3	40	44.60	480
9	3/8	1.22 x 0.914	4 x 3	26	28.99	312
13	1/2	1.22 x 0.914	4 x 3	20	22.30	240
16	5/8	1.22 x 0.914	4 x 3	16	17.84	192
19	3/4	1.22 x 0.914	4 x 3	14	15.61	168
25	1	1.22 x 0.914	4 x 3	10	11.15	120
32	1 1/4	1.22 x 0.914	4 x 3	8	8.92	96
38	1 1/2	1.22 x 0.914	4 x 3	7	7.80	84
50	2	1.22 x 0.914	4 x 3	5	5.57	60

insulflex® Insulation Sheet Roll

Continuous Roll					
Nominal Thickness		Size Per Roll		Total Area Per Roll	
mm	Inch	m	ft	m²	ft²
3	1/8	1.22 x 9.14	4 x 30	11.15	120
6	1/1	1.22 x 9.14	4 x 30	11.15	120
9	3/8	1.22 x 9.14	4 x 30	11.15	120
13	1/2	1.22 x 9.14	4 x 30	11.15	120
16	5/8	1.22 x 9.14	4 x 30	11.15	120
19	3/4	1.22 x 9.14	4 x 30	11.15	120
25	1	1.22 x 9.14	4 x 30	11.15	120
32	1 1/4	1.22 x 9.14	4 x 30	11.15	120
38	1 1/2	1.22 x 9.14	4 x 30	11.15	120
50	2	1.00 x 2.50	3.28 x 8.20	2.5	26.65