

# Atlas Copco Stationary Air Compressors

SF1 - SF2 - SF4

SF6T - SF8T

## Parts list

From following serial number onwards:  
5001 0597

"Copyright 1998, Atlas Copco Airpower n.v., Antwerp, Belgium.

Any unauthorized use or copying of the contents or any part of this book is prohibited.  
This applies in particular to trademarks, model denominations, part numbers and drawings."

No. 2930 1253 02

**Registration code:** APC SF / 39 / 990

Replaces No. 2930 1253 01

1998-03



**Atlas Copco**

Contents  
Inhoud  
Innehåll  
Inhaltsverzeichnis  
Table des matières  
Indice

Indice  
Innehållsförteckning  
Indice  
Indholdsfortegnelse  
Sisällysluettelo

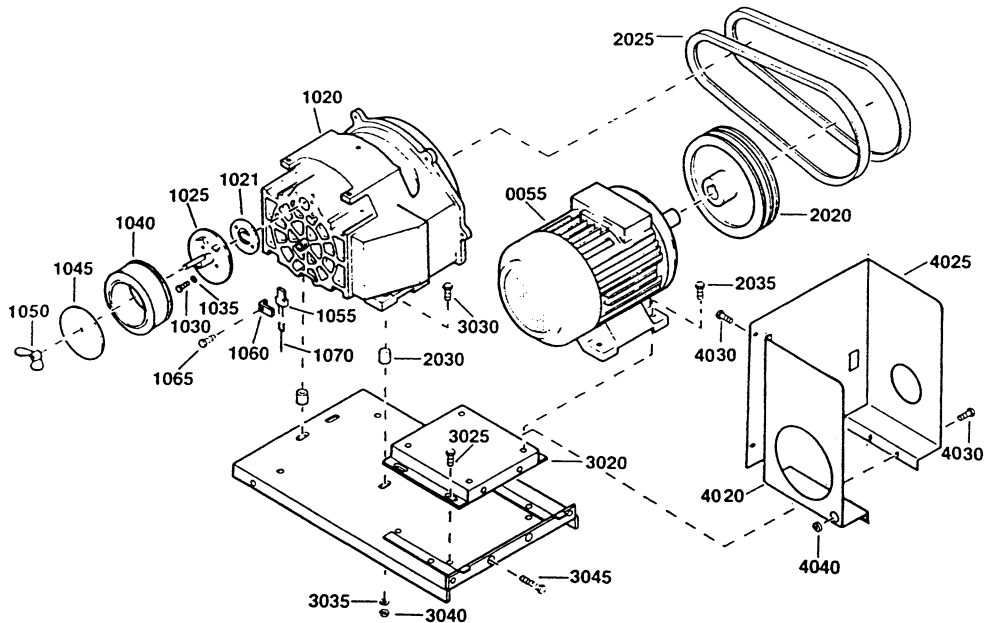
Compressor element - motor	Cubicle		
Compressorelement - motor	Kast		
Kompressorelement - motor	Skåp		
Kompressorelement - motor	Schaltschrank		
Élément compresseur - moteur	Armoire		
Elemento compresor - motor	Armario		
Elemento compressore - motore	Armadio elettrico		
Kompressorelement - motor	Elskab		
Elemento compresor - motor	Quadro		
Kompressorelement - motor	Skap		
Kompressorielementi/-elementit - motori	Kotelo		
- SF1-2-4, SF1-2-4 Skid .....	- SF1 Pack/Full-feature 230V/50Hz 1-phase DOL .....	1	8
- SF1-2-4 Pack/Full-feature .....	- SF2-4 Pack/Full-feature 50Hz 3-phase DOL .....	2	9
- SF6-8 Twin .....	- SF1-2-4 Pack/Full-feature 60Hz CSA/UL DOL .....	3	10
Air outlet	Air dryer		
Luchtuutlaat	Luchtdroger		
Luftutlopp	Lufttorkare		
Luftauslaß	Lufttrockner		
Sortie d'air	Sécheur d'air		
Salida de aire	Secador de aire		
Mandata dell'aria	Essiccatore d'aria		
Luftafgang	Lufttørrer		
Saida de ar	Secador de ar		
Luftutløp	Lufttørker		
Paineilmaputk	Kuivain		
- SF1-2-4 Pack/Full-Feature .....	- SF1-2-4 Full-feature (ID7) .....	4	11
- SF1-2-4, SF1-2-4 Skid .....	Electronic drain + Air receiver .....	5	1)
- SF6-8 Twin .....	Elektronisch aftapmechanisme + Luchtketel	6	
Bodywork	Elektronisk avtapping + Luftbehållare		
Carrosserie	Elektronischer Ablauf + Luftbehälter		
Karosseri	Dispositif de purge électronique + Réservoir d'air		
Karosserie	Dispositivo de drenaje electrónico + Deposito de aire		
Capotage	Scarico elettronico + Serbatoio aria		
Carrocería	Elektroniske dræn + Lufttank		
Cappottatura	Purga electrónica + Reservatório de ar		
Karosseri	Elektroniske avtapper + Luftbeholder		
Carroceria	Elektronisesti ohjattuja lauhteenpoistot + Ilmasäiliö		
Kabinett	- SF1-2-4 .....		12
Kotelo			
- SF1-2-4 Pack/Full-feature .....	1) Optional / Optie / Valfri / Wahlfrei / Option / Opcional / Opzionale / Valgfri / Opcional / Valgfri / Valinnainen	7	

Compressor element - motor  
 Compressorelement - motor  
 Kompressorelement - motor  
 Kompressorelement - motor  
 Élément compresseur - moteur  
 Elemento compresor - motor

Elemento compressore - motore  
 Kompressorelement - motor  
 Elemento compresor - motor  
 Kompressorelement - motor  
 Kompressorielemtti/-elementit - motori

1

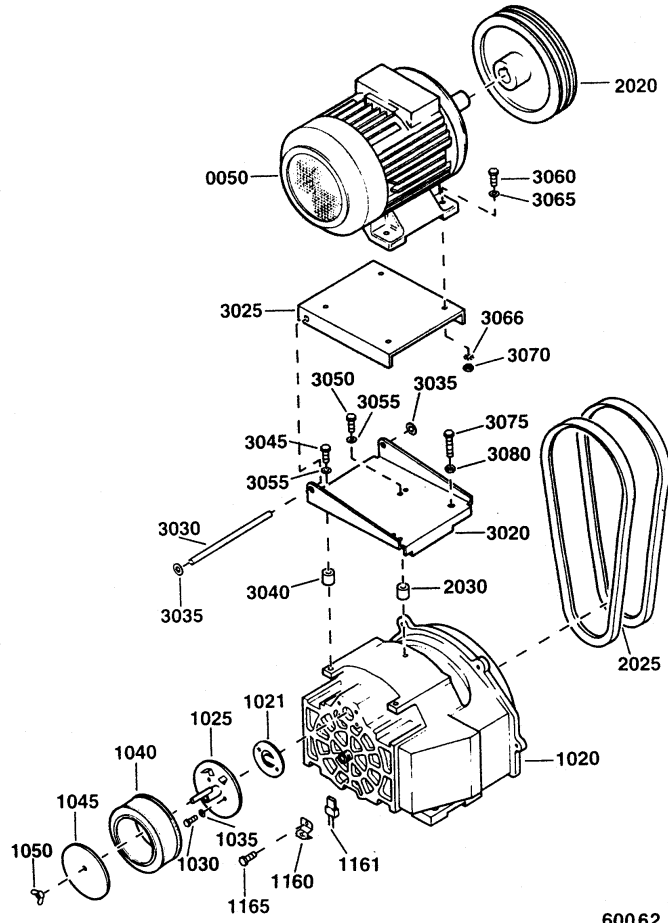
SF1-2-4, SF1-2-4 Skid



06\_0001.1

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
0055		1	Motor		2025			V-belt	
	1080 2776 51		SF2 220-240V/380-415V/50Hz		1513 0045 12	1		SF2-8	
			3-phase		1513 0290 12	2		SF4-8	
	1080 2776 61		SF4 220-240V/380-415V/50Hz		1513 0290 17	1		SF1, SF2-10	
			3-phase		1513 0290 18	2		SF4-10	
	1080 3039 11		SF1 220-230V/50Hz 1-phase		2030 2235 2540 01	4		Spacer	SF1, SF2
	1080 3039 12		SF1 240V/50Hz 1-phase		2035	4		Bolt	
1020		1	Element		1619 5337 01			SF4	
	2989 0140 00		SF1, SF2	K1	1619 5337 03			SF1, SF2	
	2989 0141 00		SF4	K2	3020 2235 2714 00	1		Support	
1021	2235 2566 00	1	Gasket		3025 1619 2766 00	4		Bolt	
1025	2235 2567 00	1	Support		3030 0147 1326 03	4		Hexagon bolt	
1030	0147 1243 03	2	Hexagon bolt		3035 0301 2335 00	4		Washer	
1035	0301 2321 00	3	Washer		3040 0266 2110 00	4		Nut	
1040	1503 0189 00	1	Filter		3045 1619 5337 03	2		Paint strip. bolt	
1045	2235 2568 00	1	Plate		4020	1		Baffle	1)
1050	0296 1108 02	1	Wing nut		2235 2712 00			SF2-10, SF4-10, SF1	
1055	1089 9343 01	1	Temperature switch		4025	1		Baffle	
1060	1089 9343 03	1	Support		2235 2711 00			SF2-10, SF4-10, SF1	
1065	0226 0300 41	1	Screw		4030	6		Bolt	
1070	2235 2697 00	1	Cable		1619 5898 01			SF2-10, SF4-10, SF1	
2020		1	Pulley		4040	1		Grommet	
	2235 2531 00		SF4-8		0698 0153 00			SF2-10, SF4-10, SF1	
	2235 2532 00		SF2-8						
	2235 2563 00		SF1, SF2-10						
	2235 2570 00		SF4-10						
									1) To be lined with / Te beklæden med / Skall bekläs med / Auskleiden mit / A garnir avec / Revestir de / Rivestire con / Skal beklædes / Forrar com / Skal fôres med / Vuorataan : Foam : 0395 1001 99 (AR) 10 x 2000 x 1500 self-adhesive Foam : 1079 0003 31 (AR) 25 x 2000 x 1500 self-adhesive
			<b>K1</b>	<b>2892 9860 40</b>	<b>1</b>			<b>Tip seal kit</b>	
			<b>K2</b>	<b>2892 9910 40</b>	<b>1</b>			<b>Tip seal kit</b>	

2



60062

Compressor element - motor  
 Compressorelement - motor  
 Kompressorelement - motor  
 Kompressorelement - motor  
 Élément compresseur - moteur  
 Elemento compresor - motor

Elemento compressore - motore  
 Kompressorelement - motor  
 Elemento compresor - motor  
 Kompressorelement - motor  
 Kompressorielemtti/-elementit - motori

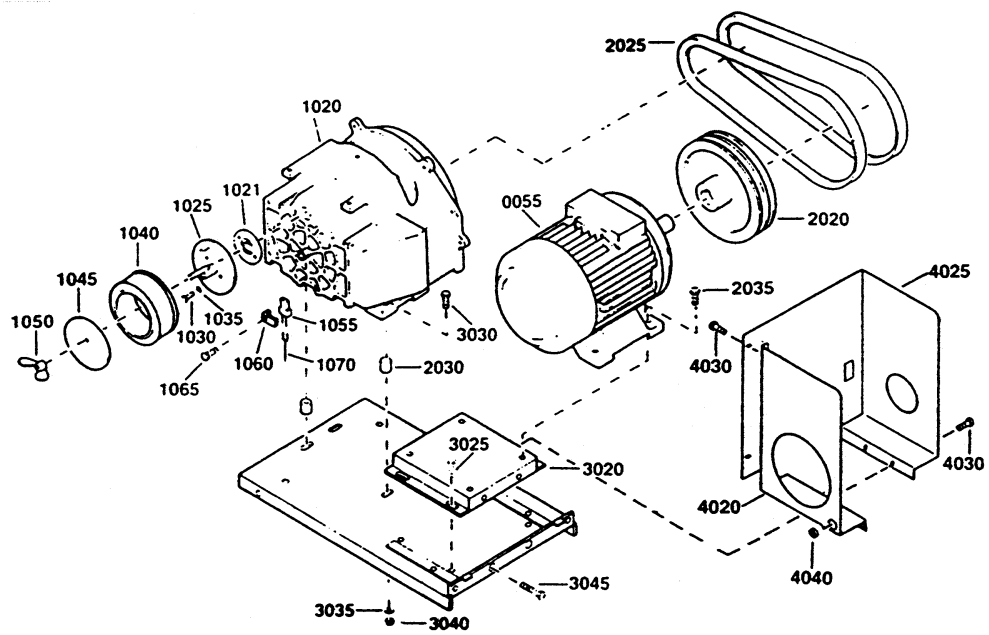
2

## SF1-2-4 Pack/Full-feature

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
0050		1	Motor						
	1080 2776 71		SF2-8/10 bar(e) 230V/400V/ 50Hz 3-phase			2235 2531 00		SF4-8 bar(e) 3-phase	
	1080 2776 72		SF2-100/125 psig 575V/60Hz 3-phase			2235 2570 00		SF4-10 bar(e) 3-phase	
	1080 2776 75		SF2-100/125 psig 230V/460V/ 60Hz 3-phase			2235 2659 00		SF1-100 psig 1-phase	
	1080 2776 76		SF4-100/125 psig 200V/60Hz 3-phase			2235 2532 01		SF2-100 psig 3-phase	
	1080 2776 81		SF4-8/10 bar(e) 230V/400V/ 50Hz 3-phase			2235 2532 02		SF2-125 psig 1-phase	
	1080 2776 82		SF4-8/10 bar(e) 500V/50Hz 3- phase, SF4-100/125 psig 575V/ 60Hz 3-phase			2235 2626 00		SF4-100 psig 3-phase	
	1080 2776 85		SF4-100/125 psig 230V/460V/ 60Hz 3-phase		2025	2235 2531 01	1	SF4-125 psig 3-phase	
	1080 2776 86		SF4-100/125 psig 200V/60Hz 3-phase			1513 0289 08		V-belt set	
	1080 3039 21		SF1-8 bar(e) 230V/50Hz 1-phase			1513 0289 08		SF1-8 bar(e) 1-phase, SF2-10 bar(e) 3-phase	
	1080 3039 17		SF1-100 psig 230V/60Hz 1-phase			1513 0289 24		SF2-8 bar(e) 3-phase	
	1080 3039 18		SF2-100/125 psig 230V/60Hz 1-phase			1513 0289 25		SF4-8 bar(e) 3-phase	
1020		1	Element			1513 0289 26		SF4-10 bar(e) 3-phase	
	2989 0140 00		SF1, SF2	K1		1513 0289 07		SF1-100 psig 1-phase, SF2-125 psig 1-phase	
	2989 0141 00		SF4	K2		1513 0289 27		SF2-100 psig 3-phase	
1021	2235 2566 00	1	Gasket		2030	1513 0289 28	1	SF4-100 psig 3-phase	
1025	2235 2567 00	1	Support			1513 0289 29		SF4-125 psig 3-phase	
1030	0147 1243 03	2	Hexagon bolt			2235 2540 02	1	Spacer	
1035	0301 2321 00	3	Washer			2235 2540 01		SF1, SF2	
1040	1503 0189 00	1	Filter		3020	2235 2516 00	1	SF4	
1045	2235 2568 00	1	Plate		3025	2235 2517 00	1	Support	
1050	0296 1108 02	1	Wing nut		3030	2235 2541 00	1	Support	
1160	1089 9343 03	1	Support		3035	1079 3353 01	2	Round bar	
1161	<<<< >>>>	1	Temperature switch	1)	3040	2235 2540 03	2	Self locking ring	
1165	0226 0300 41	1	Screw		3045	0147 1365 03	2	Spacer	
2020		1	Pulley		3050	0147 1364 03	1	Hexagon bolt	
	2235 2563 00		SF1-8 bar(e) 1-phase, SF2-10 bar(e) 3-phase		3055	0301 2344 00	3	Hexagon bolt	
	2235 2532 00		SF2-8 bar(e) 3-phase		3060	0147 1363 03	4	Washer	
					3065	0301 2344 00	4	Hexagon bolt	
					3066	0333 3232 00	4	Washer	
					3070	0266 2111 00	4	Lockwasher	
					3075	0147 1330 12	1	Nut	
					3080	0266 2110 00	1	Hexagon bolt	
								Nut	
					<b>K1</b>	<b>2892 9860 40</b>	<b>1</b>	<b>Tip seal kit</b>	
					<b>K2</b>	<b>2892 9910 40</b>	<b>1</b>	<b>Tip seal kit</b>	

1) See: Cubicles / Zie: Kasten / Se: Skåp / Siehe:  
 Schaltschränke / Voir: Armoires / Véase: Armarios /  
 Vedere: Armadios elettrici / Se: Elskab / Ver: Quadros /  
 Se: Skap / Katso: Kotelo

# 3



Compressor element - motor  
 Compressorelement - motor  
 Kompressorelement - motor  
 Kompressorelement - motor  
 Élément compresseur - moteur  
 Elemento compresor - motor

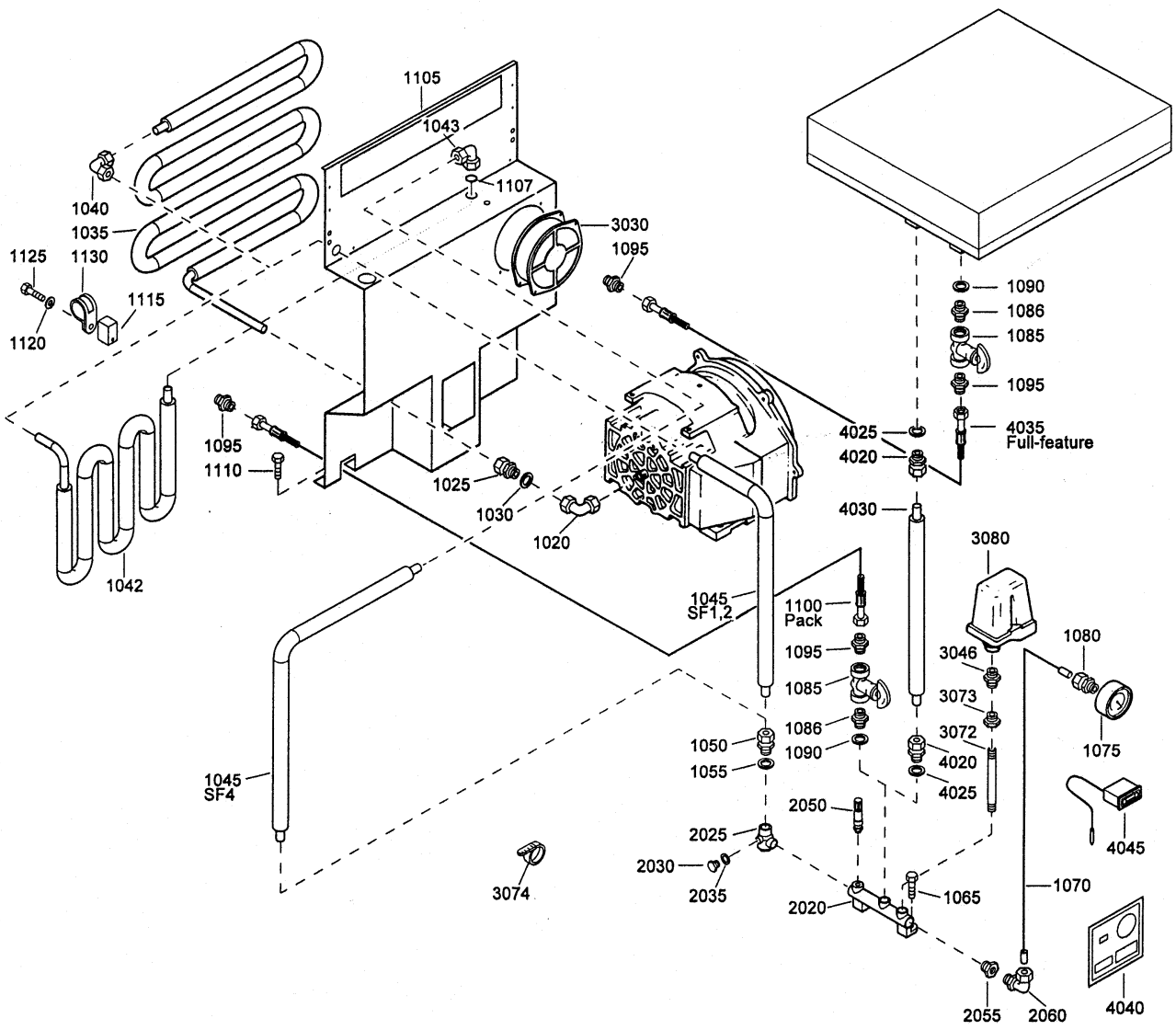
Elemento compressore - motore  
 Kompressorelement - motor  
 Elemento compresor - motor  
 Kompressorelement - motor  
 Kompressorielementti/-elementit - motori

3

## SF6-8 Twin

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
0055			Motor		2035			Bolt	
	1080 2776 51	1	SF6	2.2 kW		1619 5337 03	4	SF6	1)
	1080 2776 61	1	SF6	3.7 kW		1619 5337 01	4	SF6	2)
	1080 2776 61	2	SF8	3.7 kW		1619 5337 01	8	SF6	2)
1020			Element		3020	2235 2714 00	2	Support	
	2989 0140 00	1	SF6	1) K1	3025	1619 2766 00	8	Bolt	
	2989 0141 00	1	SF6	2) K2	3030	0147 1326 03	8	Hexagon bolt	
	2989 0141 00	2	SF8	2) K2	3035	0301 2335 00	8	Washer	
1021	2235 2566 00	2	Gasket		3040	0266 2110 00	8	Nut	
1025	2235 2567 00	2	Support		3045	1619 5337 03	4	Bolt	
1030	0147 1243 03	4	Hexagon bolt		4020		1	Baffle	3)
1035	0301 2321 00	6	Washer			2235 2712 00		SF6-8, SF8-10	
1040	1503 0189 00	2	Air filter		4025		1	Baffle	
1045	2235 2568 00	2	Plate			2235 2711 00		SF6-8, SF8-10	
1050	0296 1108 02	2	Wing nut		4030		6	Bolt	
1055	1089 9343 01	2	Temperature switch			1619 5898 01		SF6-8, SF8-10	
1060	1089 9343 03	2	Support		4040		1	Grommet	
1065	0226 0300 41	2	Screw			0698 0153 00		SF6-8, SF8-10	
1070	2235 2697 00	2	Cable						
2020			Pulley						
	2235 2563 00	1	SF6-10	1)					1) For motor 2.2 kW /
	2235 2570 00	1	SF6-10	2)					2) For motor 3.7 KW /
	2235 2570 00	2	SF8-10	2)					3) To be lined with / Te beklæden met / Skall bekläs med /
	2235 2532 00	1	SF6-8	1)					Auskleiden mit / A garnir avec / Revestir de / Rivestire
	2235 2531 00	1	SF6-8	2)					con / Skal beklædes / Forrar com / Skal föres med /
	2235 2531 00	2	SF8-8	2)					Vuorataan :
2025			V-belt						Foam : 0395 1001 99 (AR) 10 x 2000 x 1500 self-
	1513 0290 16	1	SF6-10	1)					adhesive
	1513 0290 18	1	SF6-10	2)					Foam : 1079 0003 31 (AR) 25 x 2000 x 1500 self-
	1513 0290 18	2	SF8-10	2)					adhesive
	1513 0045 12	1	SF6-8	1)	<b>K1</b>	<b>2892 9860 40</b>	<b>1</b>	<b>Tip seal kit</b>	
	1513 0290 12	1	SF6-8	2)	<b>K2</b>	<b>2892 9910 40</b>	<b>1</b>	<b>Tip seal kit</b>	
	1513 0290 12	2	SF8-8	2)					
2030			Spacer						
	2235 2540 01	4	SF6						

4





Air outlet  
Luchtuitlaat  
Luftutlopp  
Luftauslaß  
Sortie d'air  
Salida de aire

Mandata dell'aria  
Luftafgang  
Saida de ar  
Luftutløp  
Paineilmaputki

4

## SF1-2-4 Pack/Full-Feature

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
1020	0560 4400 82	1	Elbow		2020	2235 5248 00	1	Manifold	
1025	0581 0000 69	1	Pipe coupling		2025	2235 1542 01	1	Check valve	
1030	0661 1000 26	1	Seal washer		2030	0686 4201 03	1	Hexagon plug	
1035	2235 5222 00	1	Cooler		2035	0661 1000 24	1	Seal washer	
1040	2235 5220 00	1	Coupling		2050	0830 1007 68	1	Safety valve	
1042			Cooler		2055	1613 6968 03	1	Nozzle	
	2235 5223 00	1	SF4		2060	0581 1200 16	1	Coupling(elbow)	
1043		1	Coupling		3030		1	Fan motor	
	2235 5220 00		SF4			1089 0571 02		115V/60Hz	
1045		1	Cooler			1089 0571 01		220V/50Hz	
	2235 5221 00		SF1, SF2		3046	1503 2564 12	1	Nipple	50Hz
	2235 5224 00		SF4		3072	0551 0001 48	1	Threaded pipe	60Hz
1050	0581 0000 69	1	Pipe coupling		3073	0605 8303 03	1	Bushing	60Hz
1055	0661 1000 26	1	Seal washer		3074	1088 1301 02	1	Cable strip	60Hz L = 140
1065	0226 0301 00	2	Tapping screw		3080		1	Pressure switch	
1070	0070 6002 01	AR	Flex. tube			1089 0625 31		60Hz	
1075	2235 5250 00	1	Pressure gauge			1089 0389 01		50Hz	
1080	0580 8402 00	1	Pipe coupling		4020	0581 0000 69	2	Pipe coupling	3)
1085	0852 0010 24	1	Ball valve		4025	0661 1000 26	2	Seal washer	3)
1086	1503 2564 03	1	Nipple		4030	2235 5225 00	1	Cooler	3)
1090	0661 1000 26	1	Seal washer		4035	0574 8063 55	1	Hose assembly	3)
1095	1079 5840 14	2	Nipple		4040	2235 5243 00	1	Decal	3)
1100	0574 8063 39	1	Hose assembly	2)	4045	1202 7974 03	1	Thermometer	3)
<b>1105</b>		<b>1</b>	<b>Baffle assembly</b>	1)					
	<b>2235 5236 80</b>		SF1, SF2						
	<b>2235 5237 80</b>		SF4						
1107	0698 0138 00	1	Rubber ring						
1110	0226 0301 00	4	Tapping screw						
1115	2235 2725 04	2	Spacer						
1120	0301 2321 00	2	Washer						
1125	0147 1962 04	2	Scraper bolt						
1130	0346 1000 21	2	Pipe clamp						
	<b>2235 5248 50</b>	<b>1</b>	<b>Manifold assembly</b>						

1) Lined with / Bekleed met / Beklädd med / Ausgekleidet mit / Garni de / Revestido de / Allineato con / Foret med / Revestido com / Kledd med / Vuorattu  
Foam: 1079 0003 31 (AR) 25 x 2000 x 1500 self adhesive

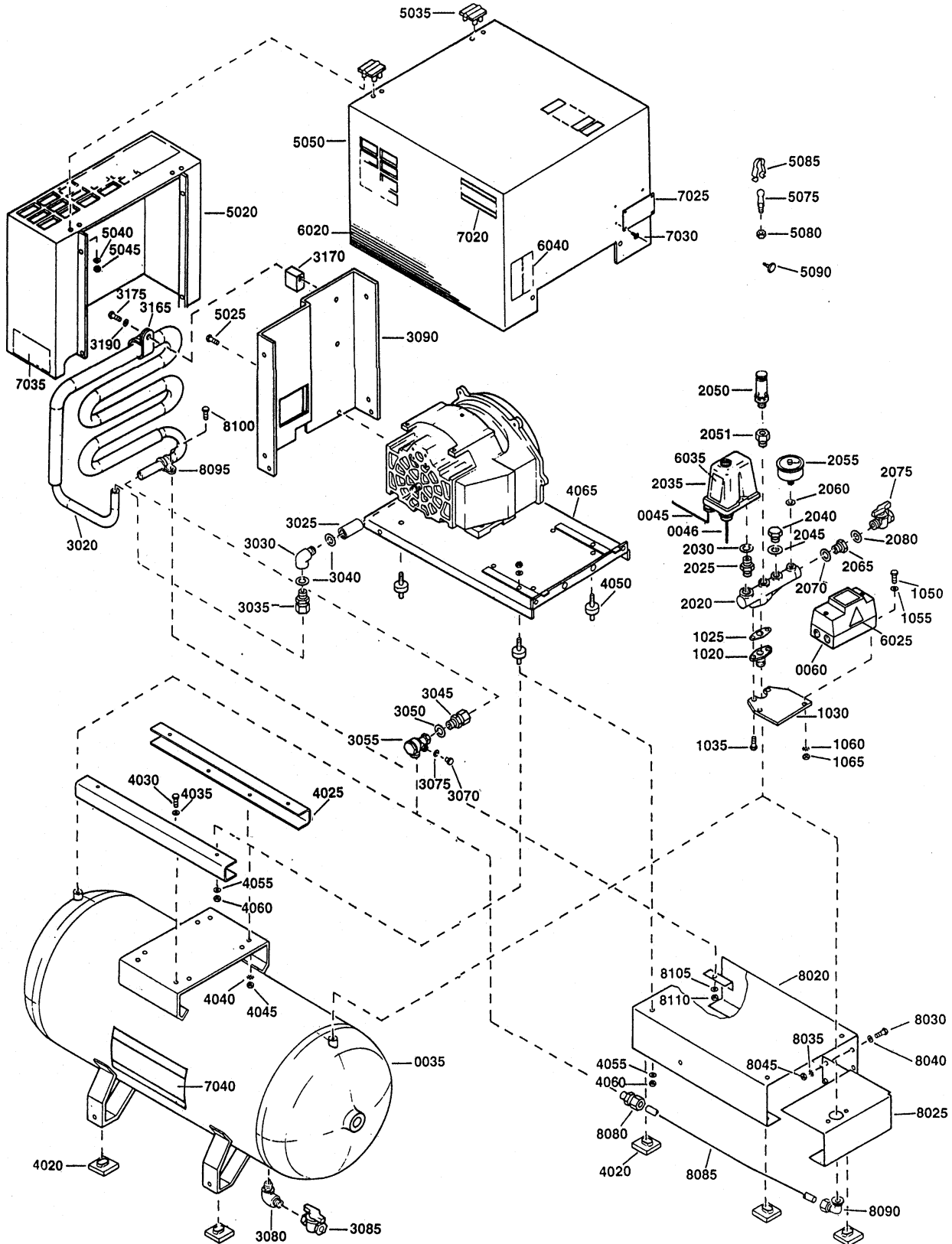
2) Pack  
3) Full-feature

5

Air outlet  
 Luchtuitlaat  
 Luftutlopp  
 Luftauslaß  
 Sortie d'air  
 Salida de aire

Mandata dell'aria  
 Luftafgang  
 Saida de ar  
 Luftutløp  
 Paineilmaputki

SF1-2-4, SF1-2-4 Skid



Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
0035	1503 2780 80	1	Air receiver 120 l	CE SF1, SF2, SF4	3175	0147 1962 04	AR	Scraper bolt M6 x 55 - 8.8	
	2235 1915 00		250 l	SF4		0147 1962 05		M6 x 65 - 8.8	
	2235 1916 00		475 l	SF2, SF4		0147 1962 06		M6 x 80 - 8.8	
0045		1	Cable		3190	0301 2321 00	AR	Washer Pad	
	2235 2549 03		SF1		4020	1502 4202 00	4		2)
	2235 2549 02		SF4 220-240V			1502 4202 00	5		3)
	2235 2549 01		SF2, SF4 380-415V		4025	2235 2700 00	2	Support	2)
0046		1	Cable		4030	0147 1323 03	4	Hexagon bolt	2)
	2235 1565 02		SF1		4035	0301 2335 00	4	Washer	2)
	2235 1565 01		SF4 220-240V		4040	0333 3227 00	4	Lockwasher	2)
	2235 1565 00		SF2, SF4 380-415V		4045	0266 2110 00	4	Nut	2)
0060		1	Circuit breaker		4050	2235 2544 01	4	Damper	
	1081 0417 10		SF4 230V 10-16A 3-phase, SF1 230V 10-16A 1-phase		4055	0301 2335 00	8	Washer	
	1081 0417 11		SF4 400V 6.3-10A		4060	0266 2110 00	8	Nut	
	1081 0417 12		SF2 400V 4-6.3A		4065	2235 2682 00	1	Support	
	1081 0417 13		SF2 230V 6.3-10A		5020	2235 2688 00	1	Duct backplate	
1020	2235 1555 00	1	Flange		5025	1619 2766 00	AR	Bolt	
1025	2235 1529 00	1	Gasket		5035	2235 2689 00	2	Hinge	
1030	2235 1554 00	1	Support	2)	5040	0301 2321 00	8	Washer	
1035	0226 0303 00	2	Tapping screw		5045	0266 2108 00	8	Nut	
1050	0160 6040 00	2	Screw		5050	2235 2715 00	1	Hood	1)
1055	0301 2318 00	2	Washer		5075	1079 2903 02	2	Panel pin	
1060	0333 3214 00	2	Lockwasher		5080	0266 2107 00	2	Nut	
1065	0266 2106 00	2	Nut		5085	1079 2903 01	2	Panel clip	
	<b>2235 1523 90</b>	<b>1</b>	<b>Manifold assembly</b>		5090	1619 0269 00	2	Rubber bumper	
2020	2235 1523 00	1	Manifold		6020	1513 0233 01	2	Decal	
2025	2235 2103 00	1	Nipple		6025	1088 1001 01	3	Warning mark	
2030	0653 1124 00	1	Flat gasket		6035	1079 9905 39	1	Label	
2035	1089 0389 41	1	Pressure switch		6040	1079 9901 09	1	Label	
2040	0686 3716 30	1	Hexagon plug		7020	0690 1112 01	2	House mark	
2045	0653 1100 00	1	Flat gasket		7025	1613 7394 01	1	Data plate	CE
2050	0830 1007 68	1	Safety valve		7030	0129 3104 00	4	Blind rivet	
2051	0605 8809 06	1	Bushing		7035		2	Label	
2055	2235 1547 00	1	Pressure gauge			1079 9918 11		SF1	
2060	0653 1062 00	1	Flat gasket			1079 9918 12		SF2	
2065	0605 8923 00	1	Bushing			1079 9918 13		SF4	
2070	0653 1165 00	1	Flat gasket		7040	0690 1125 01	2	House mark	
2075	0852 0010 09	1	Ball valve		8020	2235 2703 00	1	Support	3)
2080	0653 1100 00	1	Flat gasket		8025	2235 2704 00	1	Support	3)
3020	2235 2730 00	1	Cooler		8030	0147 1323 03	2	Hexagon bolt	3)
3025		1	Socket		8035	0333 3227 00	2	Lockwasher	3)
	0607 1100 72		SF1, SF2		8040	0301 2335 00	2	Washer	3)
	0607 2153 01		SF4		8045	0266 2110 00	2	Nut	3)
3030		1	Elbow		8080	0581 0000 84	1	Pipe coupling	3)
	0560 4400 70		SF1, SF2		8085	2235 2705 00	1	Pipe	3)
	0560 4400 82		SF4		8090	0581 1200 35	1	Pipe coupling	3)
3035	0581 0000 69	1	Pipe coupling		8095	1613 0801 07	1	Clamp	3)
3040	0653 1100 00	2	Flat gasket		8100	0147 1246 03	1	Hexagon bolt	3)
3045	0581 0000 69	1	Pipe coupling		8105	0301 2321 00	1	Washer	3)
3050	0653 1100 00	1	Flat gasket		8110	0266 2108 00	1	Nut	3)
3055	2235 1542 01	1	Check valve						
3070	0686 4201 03	1	Hexagon plug						
3075	0653 9038 00	1	Flat gasket						
3080	1503 2565 41	1	Elbow						
3085	1503 2531 00	1	Ball valve						
3090		1	Panel	1)					
	2235 2726 00		SF1, SF2						
	2235 2727 00		SF4						
3165	0346 1000 21	4	Pipe clamp						
3170		AR	Spacer						
	2235 2725 01		L = 29						
	2235 2725 02		L = 42						
	2235 2725 03		L = 55						

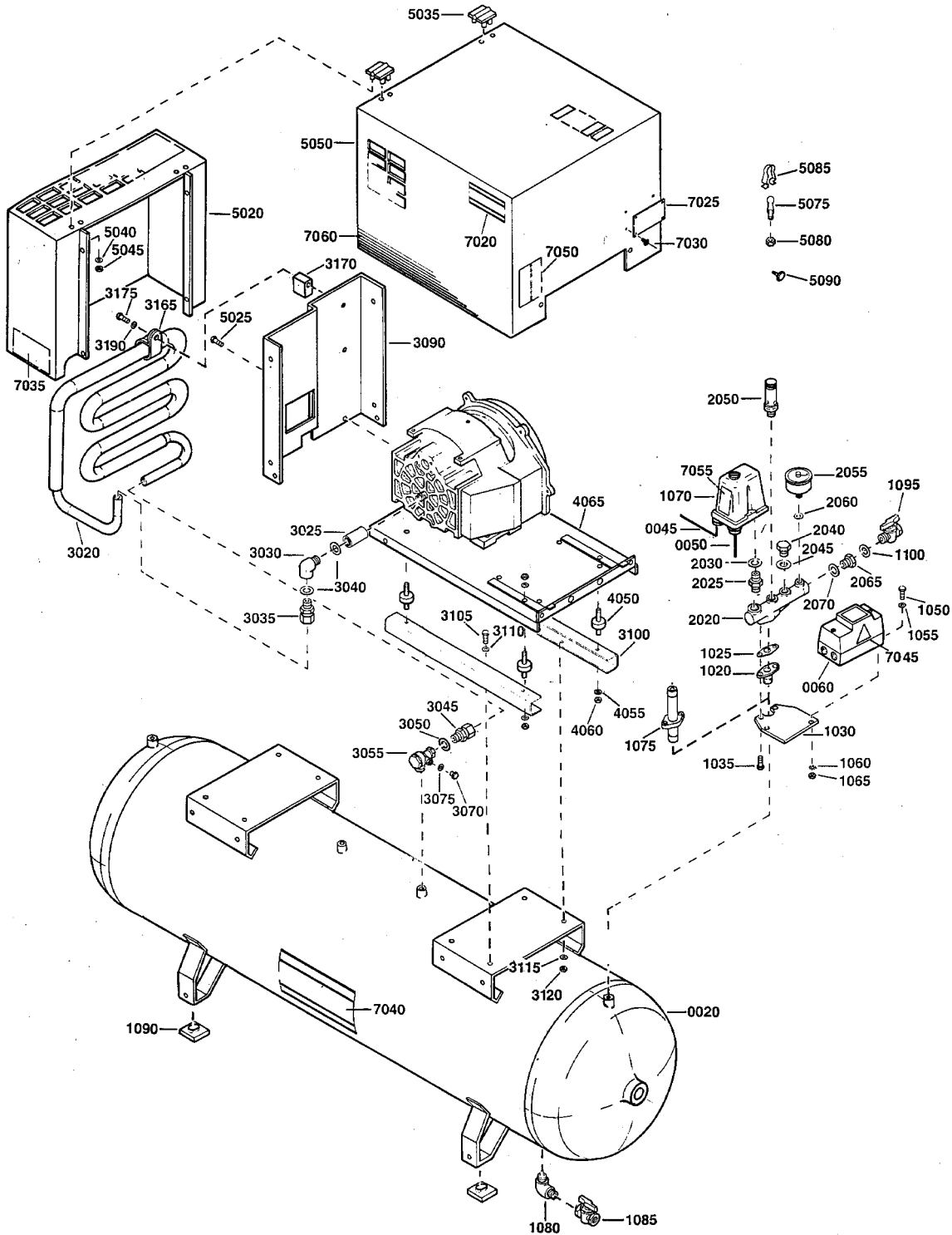
- 1) To be lined with foam plastic / Te beklede med schuimrubber / Skall kläs med skumplast / Auskleiden mit Schaumgummi / A garnir avec du caoutchouc mousse / Revestir de goma espuma / Da rivestire con plastica espansa / Skal beklædes / Forrar com / Skal föres med / Vuorataan: 1079 0006 34 (AR)
- 2) Receiver-mounted
- 3) Skid-frame version / Uitvoering met balkframe / Utförande med balkram / Ausführung mit Kufenrahmen / Exécution avec châssis-skid / Versión con bastidor / Versione con telaio a slitta

6

Air outlet  
 Luchtuitlaat  
 Luftutlopp  
 Luftauslaß  
 Sortie d'air  
 Salida de aire

Mandata dell'aria  
 Luftafgang  
 Saida de ar  
 Luftutløp  
 Paineilmaputki

SF6-8Twin



Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
0020		1	Air receiver	CE	3070			Hexagon plug	
	2235 1915 00		250 1			0686 4201 03	1	SF6	
	2235 1916 00		475 1			0686 4201 03	2	SF8	
0045			Cable assembly		3075			Flat gasket	
	2235 2549 01	1	SF6 220-240V			0653 9038 00	1	SF6	1)
	2235 2549 02	1	SF6 220-240V			0653 9038 00	1	SF8	2)
	2235 2549 01	2	SF6-8 380-415V			0653 9038 00	2	SF8	2)
	2235 2549 02	2	SF8 220-230V		3090			Panel	3)
0050			Cable			2235 2726 00	1	SF6	1)
	2235 1565 00	1	SF6 220-230V			2235 2727 00	1	SF6	2)
	2235 1565 00	2	SF6 380-415V			2235 2727 00	2	SF8	2)
	2235 1565 01	1	SF6-8 220-230V		3100			Support	
	2235 1565 01	2	SF8 220-230V			2235 2700 00	2	SF6	
0060			Circuit breaker			2235 2700 00	4	SF8	
	1081 0417 13	1	SF6 230V 6.3-10A	1)	3105			Hexagon bolt	
	1081 0417 12	1	SF6 400V 4-6.3A 1)			0147 1323 03	4	SF6	
	1081 0417 10	1	SF6 230V 10-16A	2)		0147 1323 03	8	SF8	
	1081 0417 11	1	SF6 400V 6.3-10A	2)	3110			Washer	
	1081 0417 10	2	SF8 230V 10-16A	2)		0301 2335 00	4	SF6	
	1081 0417 11	2	SF8 400V 6.3-10A	2)		0301 2335 00	8	SF8	
1020	2235 1555 00	1	Flange		3115			Lockwasher	
1025	2235 1529 00	1	Gasket			0333 3227 00	4	SF6	
1030	2235 1554 00	2	Support			0333 3227 00	8	SF8	
1035	0226 0303 00	4	Tapping screw		3120			Nut	
1050	0160 6040 00	4	Screw			0266 2110 00	4	SF6	
1055	0301 2318 00	4	Washer			0266 2110 00	8	SF8	
1060	0333 3214 00	4	Lockwasher		3165	0346 1000 21	8	Pipe clamp	
1065	0266 2106 00	4	Nut		3170		AR	Spacer	
1070	1089 0389 41	2	Pressure switch			2235 2725 01		L = 29	
1075	2235 2706 80	1	Flange assembly			2235 2725 02		L = 42	
1080	1503 2565 41	1	Elbow			2235 2725 03		L = 55	
1085	1503 2531 00	1	Ball valve		3175		AR	Scraper bolt	
1090	1502 4202 00	4	Pad			0147 1962 04		M6 x 55 - 8.8	
1095	0852 0010 21	1	Ball valve			0147 1962 05		M6 x 65 - 8.8	
1100	0661 1000 27	1	Seal washer			0147 1962 06		M6 x 80 - 8.8	
	<b>2235 1523 91</b>	<b>1</b>	<b>Manifold assembly</b>		3190	0301 2321 00	AR	Washer	
2020	2235 1523 00	1	Manifold		4050	2235 2544 01	8	Antivibration pad	
2025	2235 2103 00	1	Nipple		4055	0301 2335 00	16	Washer	
2030	0653 1124 00	1	Flat gasket		4060	0266 2110 00	16	Nut	
2040	0686 3716 30	1	Hexagon plug		4065	2235 2682 00	2	Support	
2045	0653 1100 00	1	Flat gasket		5020	2235 2688 00	2	Duct backplate	
2050	0830 1007 68	1	Safety valve		5025	1619 2766 00	8	Bolt	
2051	0605 8809 06	1	Bushing		5035	2235 2689 00	4	Hinge	
2055	2235 1547 00	1	Pressure gauge		5040	0301 2321 00	16	Washer	
2060	0653 1062 00	1	Flat gasket		5045	0266 2108 00	16	Nut	
2065	0686 4206 00	1	Hexagon plug		5050	2235 2715 00	2	Hood	4)
2070	0653 1165 00	1	Flat gasket		5075	1079 2903 02	4	Panel pin	
3020			Cooler		5080	0266 2107 00	4	Nut	
	2235 2730 00	1	SF6		5085	1079 2903 01	4	Panel clip	
	2235 2730 00	2	SF8		5090	1613 7706 01	4	Rubber bumper	
3025			Socket		7020	0690 1112 01	2	House mark	
	0607 1100 72	1	SF6	1)	7025	1613 7394 01	2	Data plate	CE
	0607 2153 01	1	SF6	2)	7030	0129 3104 00	8	Blind rivet	
	0607 2153 01	2	SF8	2)	7035			Label	
3030			Elbow			1079 9919 14	2	SF6	
	0560 4400 70	1	SF6			1079 9919 15	2	SF8	
	0560 4400 70	2	SF8		7040	0690 1125 01	2	House mark	
3035			Pipe coupling		7045	1088 1001 01	3	Warning mark	
	0581 0000 69	1	SF6		7050	1079 9901 09	1	Label	
	0581 0000 69	2	SF8		7055	1079 9905 39	2	Label	
3040			Flat gasket		7060			Decal	
	0653 1100 00	1	SF6			1513 0233 01	4	L = 515	
	0653 1100 00	2	SF8			1513 0233 02	4	L = 145	
3045			Pipe coupling			1513 0233 03	2	L = 370	
	0581 0000 69	1	SF6				AR	Bolt	
	0581 0000 69	2	SF8			1619 2766 00		M8 x 20	
3050			Flat gasket						
	0653 1100 00	1	SF6						
	0653 1100 00	2	SF8						
3055			Check valve						
	2235 1542 01	1	SF6						
	2235 1542 01	2	SF8						

1) For motor 2.2 kW /

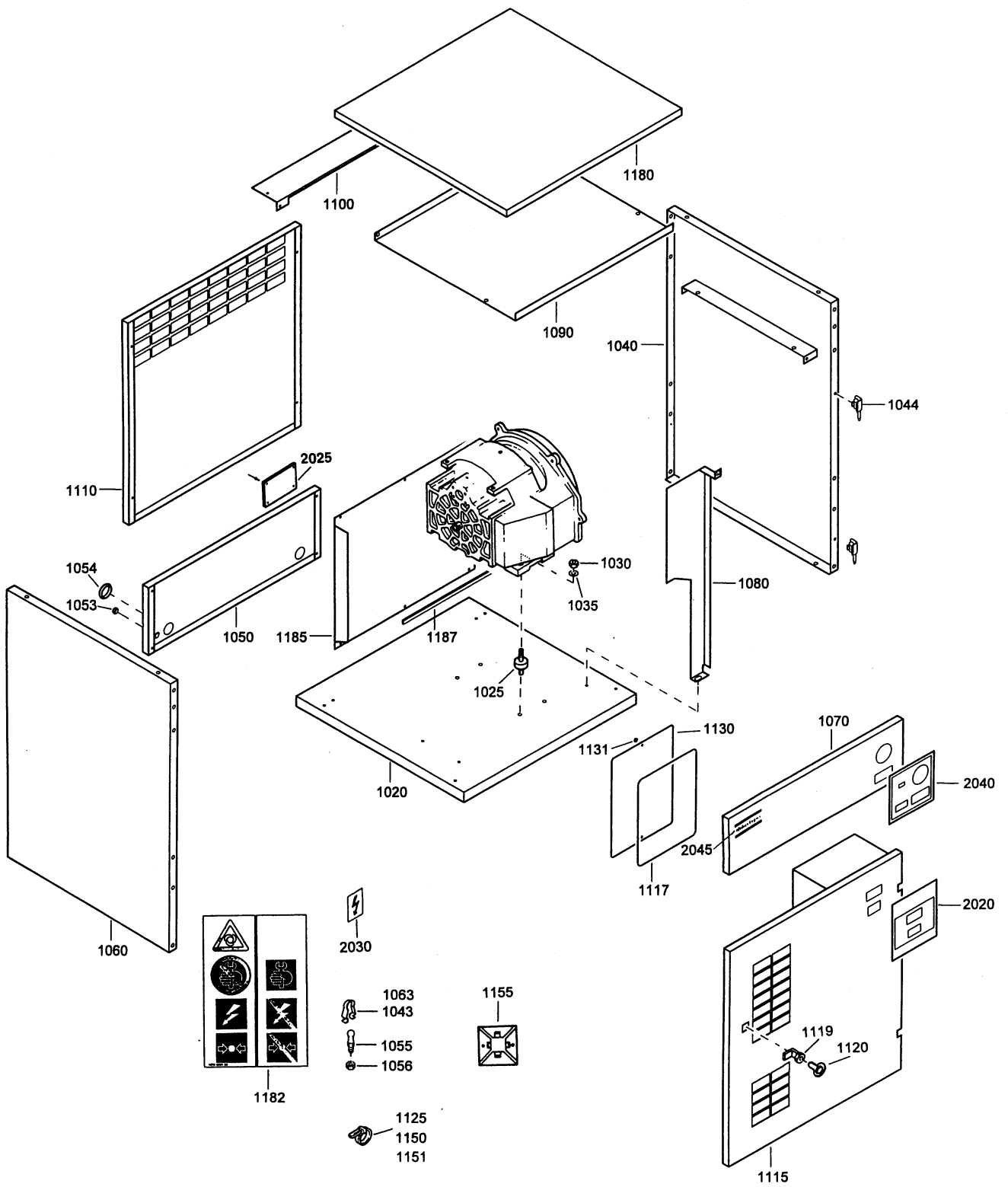
2) For motor 3.7 kW /

3-4) To be lined with / Te bekläden med / Skall bekläs med / Auskleiden mit / A garnir avec / Revestir de / Rivestire con / Skal beklædes / Forrar com / Skal fôres med / Vuorataan :

3) Foam : 1079 0006 34 (AR) 20 x 2000 x 1500 self-adhesive

4) Foam : 1079 0003 31 (AR) 25 x 2000 x 1500 self-adhesive

# 7



Bodywork  
 Carrosserie  
 Karosseri  
 Karosserie  
 Capotage  
 Carroceria

Cappottatura  
 Karosseri  
 Carroceria  
 Kabinett  
 Kotelo

7

## SF1-2-4 Pack/Full Feature

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
1020	2235 5226 00	1	Frame		2025	1503 2975 00	1	Data label	CE
1025	2235 2544 00	4	Damper		2030	1088 1001 01	4	Warning mark	
1030	0266 2110 00	4	Nut		2040		1	Decal	
1035	0301 2318 00	4	Washer			2235 5242 00		Pack	
<b>1040</b>	<b>2235 5227 80</b>	<b>1</b>	<b>Panel assembly</b>	1)		2235 5243 00		Full-feature	
1043	1079 2903 01	6	Panel clip		2045	0690 1112 01	1	House mark	
1044	1202 6400 00	2	Hinge					AR Screw	
<b>1050</b>	<b>2235 5234 80</b>	<b>1</b>	<b>Panel assembly</b>	1)		0160 6040 00		M4 x 12	
1053	0698 0138 00	1	Rubber ring					AR Tapping screw	
1054	1088 0801 31	2	Grommet			0226 0047 01		Ø4.8 x 9.5	
1055	1079 2903 03	4	Panel pin			0226 0301 00		M8 x 16	
1056	0266 2107 00	4	Nut			0226 3343 75		Ø4.8 x 6.5	
<b>1060</b>	<b>2235 5227 81</b>	<b>1</b>	<b>Panel assembly</b>	1)				AR Bolt	
1063	1079 2903 01	6	Panel clip			0147 1205 03		M5 x 12 - 8.8	
<b>1070</b>	<b>2235 5230 80</b>	<b>1</b>	<b>Panel assembly</b>	1)		1619 2766 00		M8 x 20	
1080	2235 5239 00	1	Baffle					AR Washer	
1090	2235 5235 00	1	Plate	Pack		0301 2318 00		Ø5.3 x 10 x 1	
1100	2235 5240 00	1	Baffle			0301 2335 00		Ø8.4 x 16 x 1.6	
<b>1110</b>	<b>2235 5232 80</b>	<b>1</b>	<b>Panel assembly</b>	1)				AR Lockwasher	
	1079 2903 03	4	Panel pin			0333 3214 00		Ø4.3 x 8	
<b>1115</b>	<b>2235 5228 80</b>	<b>1</b>	<b>Panel assembly</b>	1)				AR Nut	
1117	1513 0267 08	1	Seal			0266 2106 00		M4	
1119	2235 2592 00	1	Door lock			0266 2107 00		M5	
1120	1089 9068 01	2	Key			0266 2110 00		M8	
1125	1088 1301 03	1	Cable strip	L = 186					
1130	2235 5229 00	1	Plate						
1131	2235 2669 00	2	Washer						
1150	1088 1301 01	10	Cable strip	L = 92					
1151	1088 1301 02	7	Cable strip	L = 140					
1155	1088 1305 01	10	Push mount						
<b>1180</b>	<b>2235 5233 80</b>	<b>1</b>	<b>Panel assembly</b>	1)					
1182	1079 9901 09	1	Label						
	1079 2903 03	4	Panel pin						
<b>1185</b>	<b>2235 5238 80</b>	<b>1</b>	<b>Plate</b>						
1187	1619 3843 00	AR	Seal						
2020		1	Decal						
	2235 5241 01		SF1						
	2235 5241 02		SF2						
	2235 5241 03		SF4						

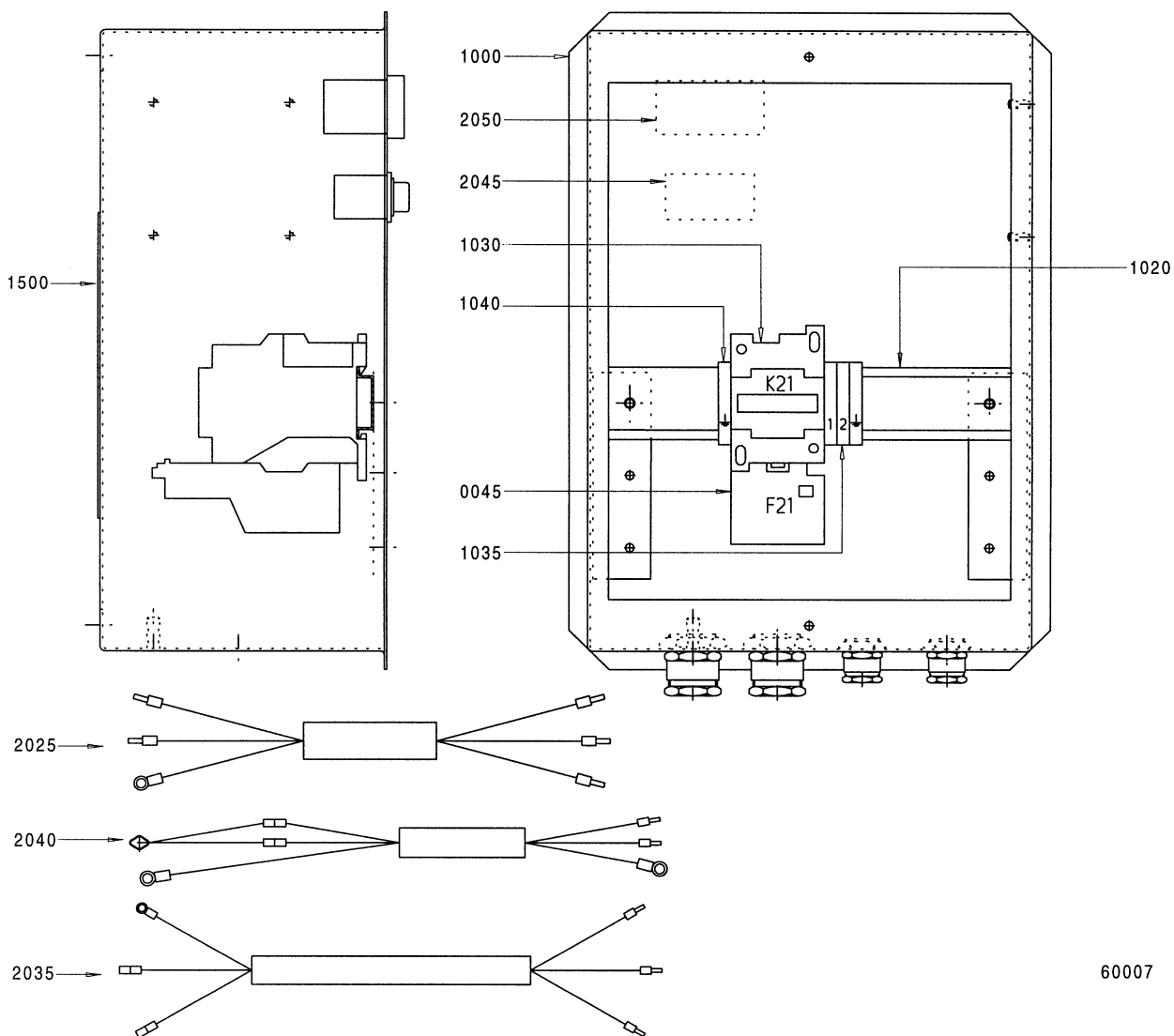
1) Lined with / Bekleed met / Beklädd med / Ausgekleidet mit / Garni de / Revestido de / Allineato con / Foret med / Revestido com / Kledd med / Vuorattu :  
 Foam : 1079 0003 31 (AR) 25 x 2000 x 1500 self-adhesive

8

Cubicle  
Kast  
Skåp  
Schaltschrank  
Armoire  
Armario

Armadio elettrico  
Elskab  
Quadro  
Skap  
Kotelo

SF1 Pack/Full-feature 230V/50Hz 1-phase DOL



60007

60007

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
0045		1	Overload relay		1040	1089 0573 04	2	Terminal	
	1089 9411 12		SF1 230V		1500	9820 2540 01	1	Service diagram	
	<b>1900 2502 01</b>	<b>1</b>	<b>Cubicle</b>		2025	2235 5247 01	1	Cable	L = 1450
1000		1	Cubicle		2035	2235 2548 03	1	Cable assembly	L = 1400
1020	2235 5249 00	1	Cubicle support		<b>2040</b>	<b>2235 5247 02</b>	<b>1</b>	<b>Cable</b>	L = 600
1030	1089 9400 22	1	Contactor			1089 9343 02	1	Temperature switch	80°C
1035	1089 0573 01	2	Terminal		2045	1089 0570 04	1	Switch	
					2050	1089 9202 13	1	Hourmeter	

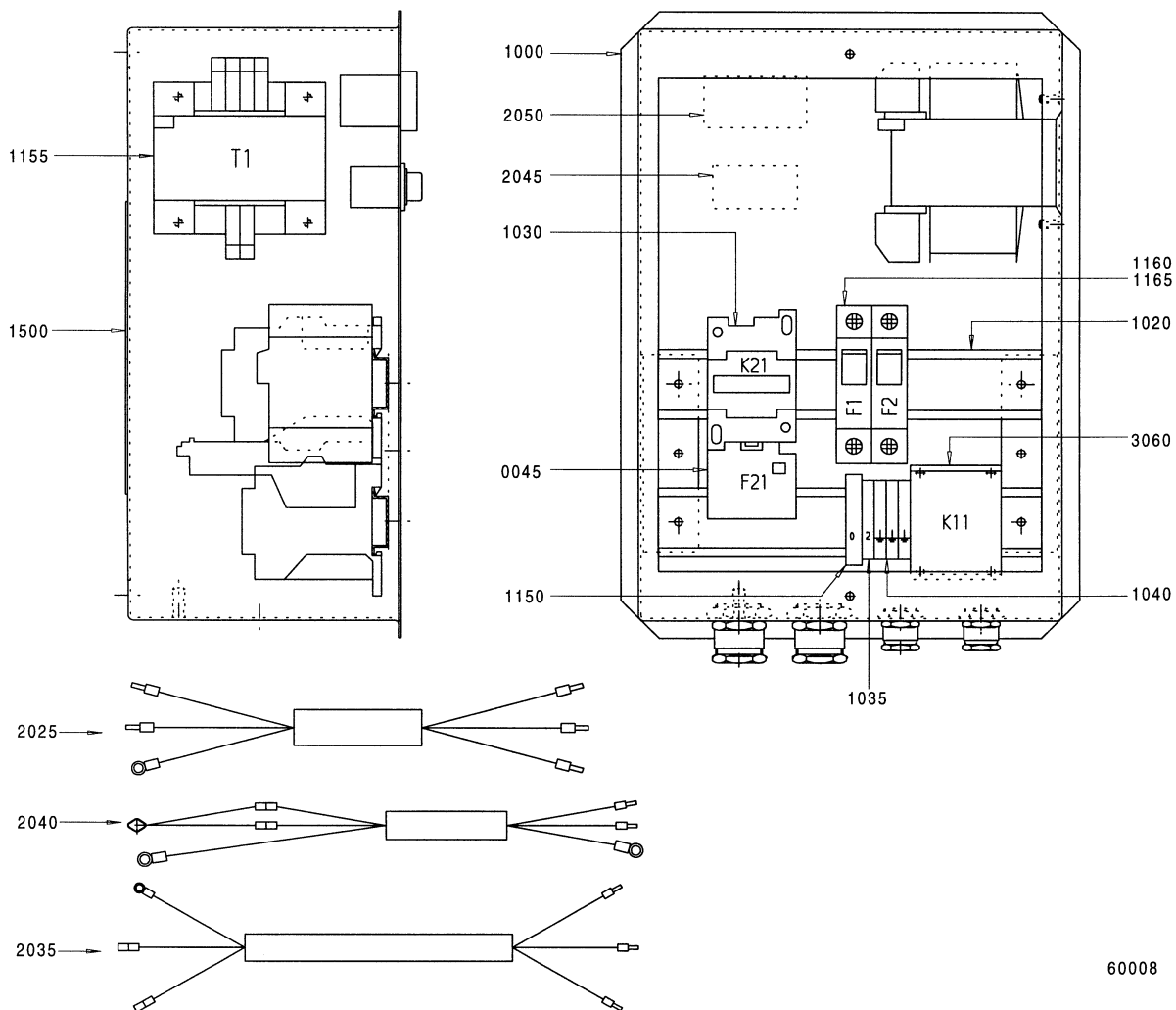


Cubicle  
Kast  
Skåp  
Schaltschrank  
Armoire  
Armario

Armadio elettrico  
Elskab  
Quadro  
Skap  
Kotelo

9

SF2-4 Pack/Full-feature 50Hz 3-phase DOL

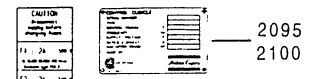
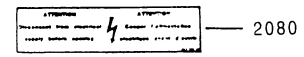
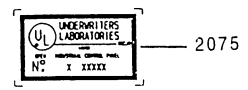
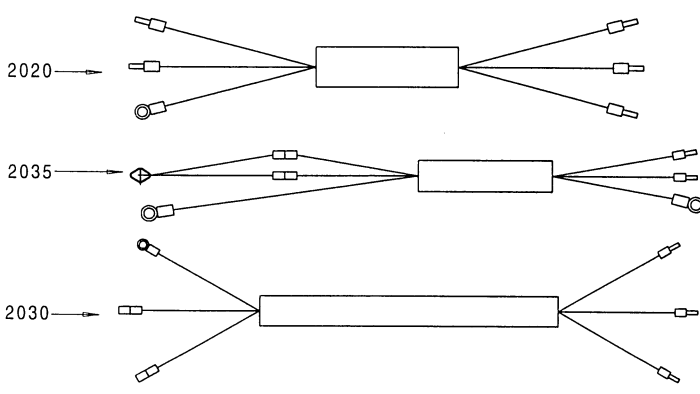
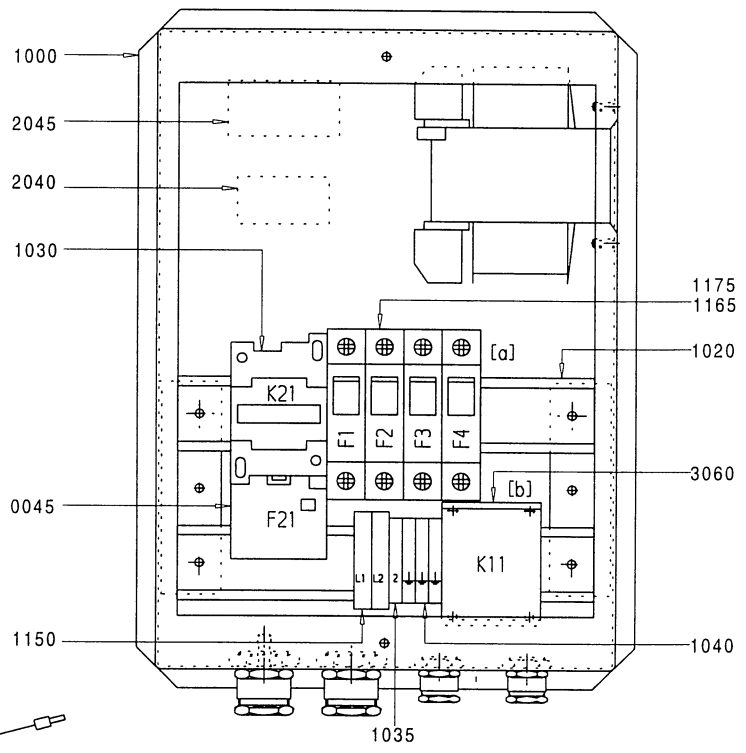
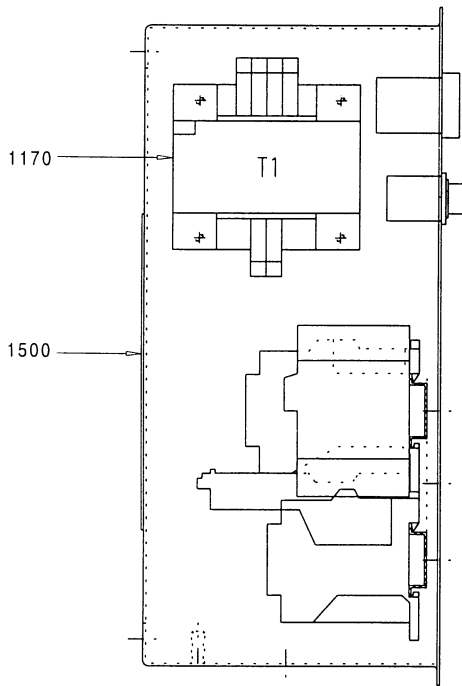


60008

60008

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
0045	1089 9411 09	1	Overload relay SF2P 230-400V		1160	1089 9332 01	2	Fuse	400-500V/50Hz FF
	1089 9411 10	1	Overload relay SF4P 500V		1165	1089 9333 01	2	Fuse holder	400-500V/50Hz FF
	<b>1900 2502 05</b>	<b>1</b>	<b>Cubicle</b>		1500		1	Service diagram	
	<b>1900 2502 02</b>		400-500V/50Hz P + FF		9820 2540 04		1	Service diagram	400-500V/50Hz P + FF
	<b>1900 2502 03</b>		230-400V/50Hz P		9820 2540 02		1	Service diagram	230-400V/50Hz P
1000		1	Cubicle		2025	2235 5247 01	1	Cable	L = 1450
1020	2235 5249 00	1	Cubicle support		2035	2235 2548 03	1	Cable assembly	L = 1400
1030		1	Contactors		<b>2040</b>	<b>2235 5247 00</b>	<b>1</b>	<b>Cable</b>	
	1089 9400 21		230-400V/50Hz P, 400-500V/50Hz P + FF			<b>2235 5247 02</b>		SF2/4-8 bar(e)	70°C L = 600
	1089 9400 23	1	230V/50Hz P				1	Temperature switch	SF2/4-10 bar(e) 80°C L = 600
1035		1	Terminal		1089 9343 01		1	Temperature switch	SF2/4-8 bar(e) 70°C
	1089 0573 01	1	400-500V/50Hz P + FF		1089 9343 02		1	Temperature switch	SF2/4-10 bar(e) 80°C
	1089 0573 01	6	230-400V/50Hz P, 230V/50Hz P		2045	1089 0570 04	1	Switch	
1040	1089 0573 04	3	Terminal		2050	1089 9202 13	1	Hourmeter	
1150		1	Terminal		3060		1	Contactors	
	1089 0573 03	1	400-500V/50Hz P + FF			1089 9400 51	1	Contactors	SF2-4 FF 400-500V (ID7 230V)
1155		1	Transformer						
	1089 9136 17		400-500V/50Hz FF						
					P			Pack	
					FF			Full-feature	

# 10



2085

60009

Cubicle  
Kast  
Skåp  
Schaltschrank  
Armoire  
Armario

Armadio elettrico  
Elskab  
Quadro  
Skap  
Kotelo

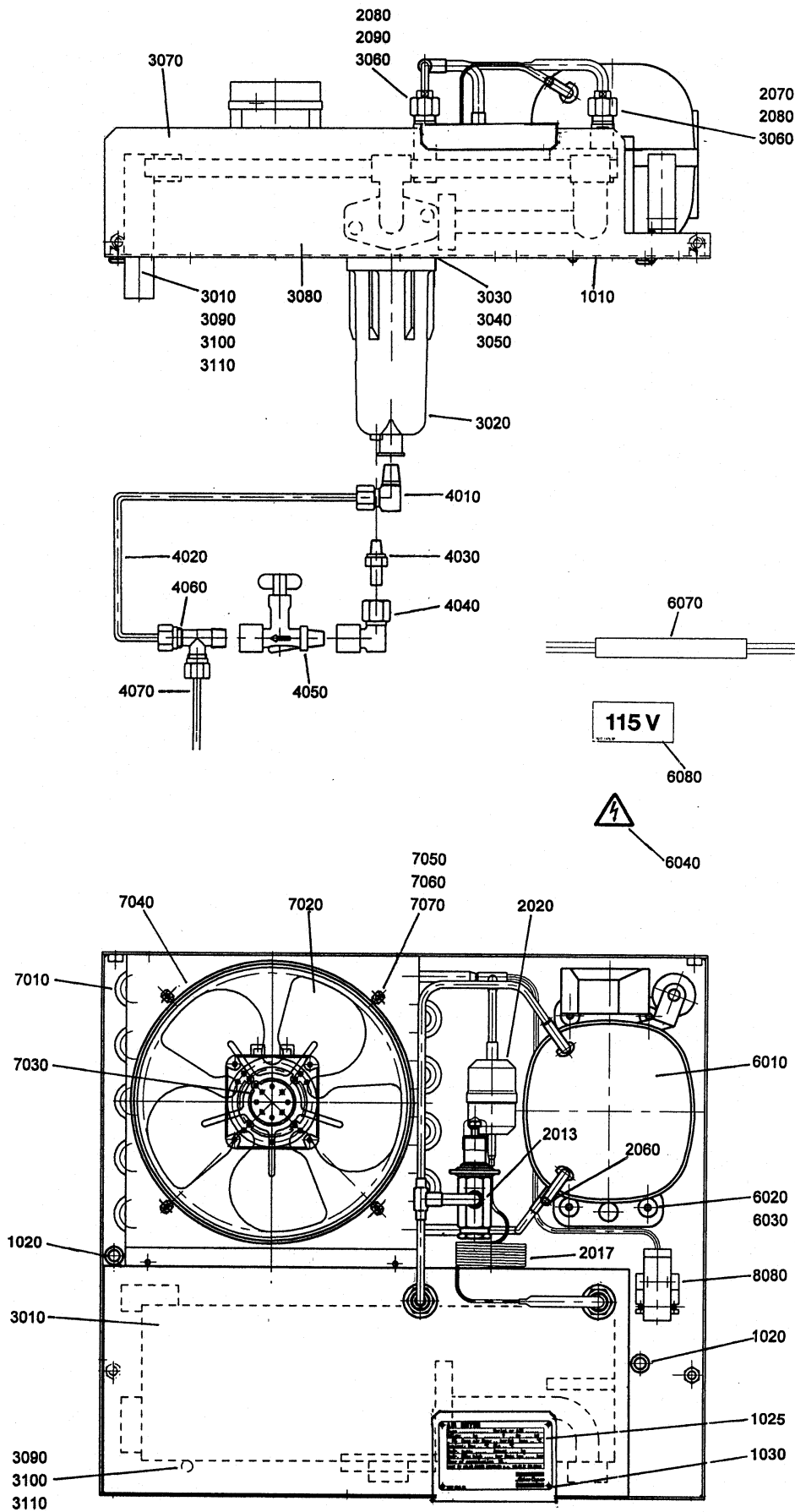
---

**SF1-2-4 Pack/Full-feature 60Hz CSA/UL DOL**


---

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
0045		1	Overload relay		1175		•	Fuse link	
	1089 9411 12		SF1P 230V 1-phase,			1089 9168 24	2	SF1-2P 230V 1-phase,	
	1089 9411 09		SF2P 230V 1-phase,					SF2P 200-230V 3-phase,	
	1089 9411 10		SF2P 460V 3-phase,					SF2-4P 460-575V 3-phase,	
	1089 9411 13		SF2P 575V 3-phase			1089 9168 34	2	SF4P 200-230V 3-phase	
			SF4P 460V 3-phase,		1500		•	SF1-2FF 220V 1-phase	
			SF4P 575V 3-phase			9820 2540 06	1	Service diagram	
			SF4P 230V 3-phase,			9820 2540 07	1	1-phase	
			SF4P 200V 3-phase		2020	2235 5247 11	1	3-phase	
		1	<b>Cubicle</b>		2030	2235 2548 11	1	Cable	L = 1530
	<b>1900 2502 11</b>		SF1-2P 230V 1-phase		2035		1	Cable assembly	L = 1400
	<b>1900 2502 13</b>		SF2P 200-230V 3-phase,			<b>2235 5247 10</b>	1	<b>Cable</b>	
			SF2-4P 460-575V 3-phase			<b>2235 5247 12</b>	1	SF2/4-100 psig	70°C L = 680
	<b>1900 2502 14</b>		SF4P 200-230V 3-phase				•	SF2/4-125 psig	80°C L = 680
1000		•	Cubicle				1	Temperature switch	
1020	2235 5249 00	•	Cubicle support			1089 9343 01	1	SF2/4-100 psig	70°C
1030		•	Contacteur			1089 9343 02	1	SF2/4-125 psig	80°C
	1089 9400 33		SF1-2P 230V 1-phase,		2040	1089 0570 07	1	Switch	
			SF4P 200-230V 3-phase,		2045	1089 9202 14	1	Hourmeter	
	1089 9400 31		SF2P 200-230V 3-phase,		2075	1613 5330 01	1	Listing mark	
			SF2-4P 460-575V 3-phase		2080	1613 3431 00	1	Label	
1035	1089 0573 01	•	Terminal		2085	1079 9909 99	1	Label	
1040	1089 0573 04	•	Terminal		2090	1079 9901 68	1	Warning label	
1150		•	Terminal		2095	1613 3046 00	1	Data plate	
	1089 0573 03	2	SF1-2P 230V 1-phase		2100	0129 3103 00	4	Blind rivet	
	1089 0573 03	3	SF2P 200-230V 3-phase,		3060		1	Contacteur	
			SF2-4P 460-575V 3-phase,			1089 9400 61		SF1-2-4FF	
			SF4P 200-230V 3-phase						
1165		•	Fuse holder		P	Pack			
	1089 9049 04	4	SF1FF 1-phase 220V		FF	Full-feature			
	1089 9049 04	2	SF1-2P 230V 1-phase,						
			SF2P 200-230V 3-phase,						
			SF2-4P 460-575V 3-phase,						
			SF4P 200-230V 3-phase						
1170		•	Transformer						
	1089 9136 52	1	SF1-2P 230V 1-phase						

# 11



60071

Air dryer  
Luchtdroger  
Lufttorkare  
Lufttrockner  
Sécheur d'air  
Secador de aire

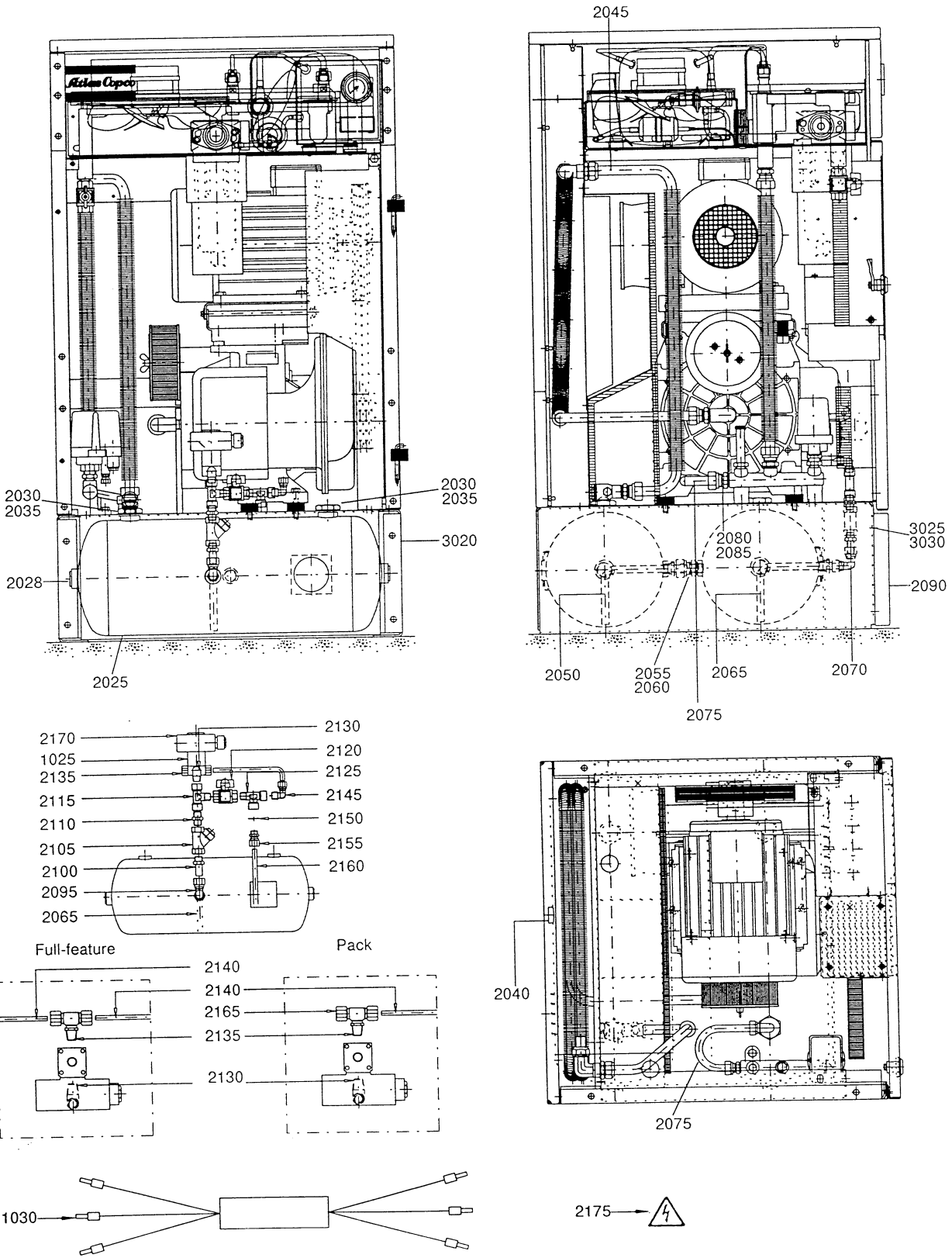
Essiccatore d'aria  
Lufttørrer  
Secador de ar  
Lufttørker  
Kuivain

11

## SF1-2-4 Full-feature (ID7)

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
		<b>1</b>	<b>Dryer</b>		4020	0070 6002 05	•	AR Hose	
	<b>8092 2423 98</b>		SF2-4 200-230-460-575V/60Hz (ID7 115V/60Hz C,U)		4030	0581 0000 72	•	1 Pipe coupling	
	<b>8092 2423 80</b>		SF2 230V/60Hz 3-phase (ID7 220V/60Hz C, U)		4040	0581 1200 41	•	1 Elbow coupling	
	<b>8092 2424 48</b>		SF1 230V/60Hz 1-phase (ID7 220V/60Hz C, U)		4050	1619 7336 00	•	1 Cock	
	<b>8092 2424 55</b>		SF2-4 400-500V/50Hz 3-phase (ID7 230V/50Hz)		4060	0581 2000 23	•	1 Tee pipe coupling	
	<b>8092 2423 72</b>		Others (ID7 230V/50Hz)		4070	0070 6002 05	•	AR Hose	
1010	1617 1468 00	•	1 Frame		6010		•	1 Compressor	
1020	0698 0141 00	•	2 Grommet			1617 1252 01		230V/50Hz	
1025	1617 0745 00	•	1 Data plate			1617 1252 05		220V/60Hz	
1030	0129 3103 00	•	2 Blind rivet			1617 1252 02		115V/60Hz	
2013	1617 1284 01	•	1 Hot gas bypass regulating		6020	0300 0274 64	•	4 Washer	
2017	1617 1536 80	•	1 Capillary-tube assembly		6030	1079 3353 03	•	4 Push-on clip	
2020	1617 1322 01	•	1 Filter-dryer		6040	1088 1001 01	•	1 Warning mark	
2060	1619 5563 02	•	1 Schräderventiel		6070		•	1 Wiring	
2070	1617 0139 00	•	1 Sleeve			1617 1672 80		50Hz	
2080	1617 0092 01	•	1 Nut			1617 1673 80		60Hz C,U	
2090	1617 0139 00	•	1 Sleeve		6080		•	1 Label	
2100	1617 0092 01	•	1 Nut			1617 1479 00		115V	
3010	1617 1467 00	•	1 Heat exchanger			<b>1617 1671 81</b>		<b>1 Condensator-fan assembly</b>	
<b>3020</b>	<b>1617 0536 00</b>	•	<b>1 Water separator</b>			<b>1617 1671 82</b>		230V/50Hz	
	0663 2100 39	•	1 O-ring			<b>1617 1671 83</b>		220V/60Hz	
3030	0663 9191 00	•	2 O-ring		7010	1617 1469 00	•	1 Condensator	
3040	0147 1326 03	•	4 Hexagon bolt		7020	1617 1314 01	•	1 Fan	
3050	0301 2335 00	•	4 Washer		7030		•	1 Fan motor	
3060	1617 0092 03	•	2 Ring			1617 1315 02		115V/60Hz C,U	
3070	1617 1463 00	•	1 Insulation top			1617 1315 03		220V/60Hz	
3080	1617 1464 00	•	1 Insulation bottom			1617 1315 01		230V/50Hz	
3090	1617 0103 09	•	2 Threaded rod		7040	1617 1316 01	•	1 Fan grating	
3100	0266 2108 00	•	2 Nut		7050	0147 1208 03	•	4 Bolt	
3110	0301 2321 00	•	2 Washer		7060	0301 2318 00	•	4 Washer	
4010	0581 1200 15	•	1 Elbow		7070	0333 3215 00	•	4 Lockwasher	
					8080	1603 1007 11	•	1 Pressure switch	

# 12



Electronic drain + Air receiver 1)	Scarico elettronico + Serbatoio aria
Elektronisch aftapmechanisme + Luchtketel	Elektroniske dræn + Lufttank
Elektronisk avtappning + Luftbehållare	Purga electrónica + Reservatório de ar
Elektronischer Ablaß + Luftbehälter	Elektroniske avtapper + Luftbeholder
Dispositif de purge électronique + Réservoir d'air	Elektronisesti ohjattuja lauhteenpoistot + Ilmasäiliö
Dispositivo de drenaje electrónico + Deposito de aire	

## SF1-2-4

Ref.	Part number	Qty	Name	Remarks	Ref.	Part number	Qty	Name	Remarks
		<b>1</b>	<b>Electronic drain</b>	1)	2105	2235 2607 01	• 1	Filter	
	<b>8055 2161 32</b>		220V		2110	1503 2564 02	• 1	Nipple	
	<b>8055 2161 40</b>		110V		2115	1503 2566 21	• 1	Tee	
1025		• 1	Solenoid valve		2120	1503 2531 00	• 1	Ball valve	
	1089 0434 07		220V C, U		2125	1503 2566 11	• 1	Tee	
	1089 0434 08		110V C, U		2130	1503 2565 40	• 1	Elbow	
1030		• 1	Cable assembly		2135	0581 2000 30	• 1	Coupling	
	2235 2550 01		220V C, U		2140	0070 6002 05	• AR	Plastic tube	
	2235 2550 02		110V C, U		2145	0581 1200 23	• 1	Elbow coupling	
<b>2025</b>	<b>2235 5264 80</b>	<b>• 2</b>	<b>Air receiver</b>	1)	2150	0661 1000 25	• 1	Seal washer	
2028	0686 6134 00	•• 2	Plug		2155	0581 0000 35	• 1	Coupling	
	2235 5264 00	•• 1	Air receiver		2160	0070 6002 05	• AR	Plastic tube	
2030	0605 8700 37	• 4	Bushing		2165	0584 0080 06	• 1	Plug	
2035	0661 1000 29	• 8	Seal washer		2170	1089 9259 01	• 1	Timer	
2040	0686 6132 00	• 3	Plug		2175	1088 1001 01	• 1	Warning mark	
2045	2235 5267 00	• 1	Cooler			<b>2235 5252 80</b>	<b>• 1</b>	<b>Frame assembly</b>	
2050	2235 5262 00	• 1	Pipe		3020	2235 5252 00	•• 1	Frame	
2055	0581 0000 37	• 1	Pipe coupling		3025	1079 2903 03	•• 4	Panel pin	
2060	0661 1000 27	• 1	Seal washer		3030	0266 2107 00	•• 4	Nut	
2065	2235 5262 00	• 1	Pipe						
2070	0581 1200 36	• 1	Pipe coupling						1) Optional / Optie / Valfri / Wahlfrei / Option / Opcional /
2075	2235 5266 00	• 1	Pipe						Opzionale / Valgfri / Opcional / Valgfri / Valinnainen
2080	0581 0000 37	• 1	Pipe coupling						2) Lined with / Bekleed met / Beklädd med / Ausgekleidet
2085	0661 1000 27	• 1	Seal washer						mit / Garni de / Revestido de / Allineato con / Foret med
<b>2090</b>	<b>2235 5265 80</b>	<b>• 1</b>	<b>Panel assembly</b>	2)					/ Revestido com / Kledd med / Vuorattu
2095	0581 1261 01	• 1	Pipe coupling						Foam: 1079 0003 31 (AR) 25 x 2000 x 1500 self-
2100	0581 0000 90	• 1	Adapter						adhesive

**Notes:**

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....