

Single Pack MS18UHULTM 115V 60Hz CSCR

Single pack code number: **195B4664**

Position	Title	Code	Amount
1	Compressor MS18UHULTM	104M0810	1
2	SC starting device (600mm)	117-7801	1
3	Bolt joint for one compressor M6 ø16mm	118-1917	1

Secop GmbH • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • www.secop.com

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved.

ULT - ready

Model

Designation	MS18UHULTM	115V/60Hz 1~	Sales code:	104M0810
-------------	-------------------	--------------	-------------	-----------------

Compressor design

Oil type	Polyolester	Refrigerant(s)	R170, R508B
Oil viscosity	32cST	Displacement	17,68cm ³ / 1,08cu.in
Oil quantity	620cm ³ / 21fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	450g / 15,9oz		
Free gas volume comp.	1460cm ³ / 49,4fl.oz		
Weight	14,2kg / 31,3lbs		
Motor protection	external		
Winding resistance main	0,82Ω (at 25°C)		
Winding resistance aux	2,9Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	140°C / 284°F		



General - Configurations with MS18UHULTM

	Conf. 1
Motorconfiguration	CSCR
Power supply (nominal)	115V/60Hz
Number of phases	1
Voltage range	103-127V
Approvals	UL
Starting torque	HST
Note	ULT-ready. Compressor for low-temp-stage of cascade refrigeration systems.

Applications with MS18UHULTM

	Conf. 1
Refrigerant	R170
Application	LBP
System cooling	fan 3m/s
Hot gas defrost	-/-
Long interval pull down	-/-

Electrical data - Configurations with MS18UHULTM

	Conf. 1
Starting device type	relay
Run capacitor	23,5μF
Start capacitor	280μF
LRA (locked rotor amps / 4s)	44,12A
RLA (rated load amps / 1s)	7,48A
Cut in current	44,12A

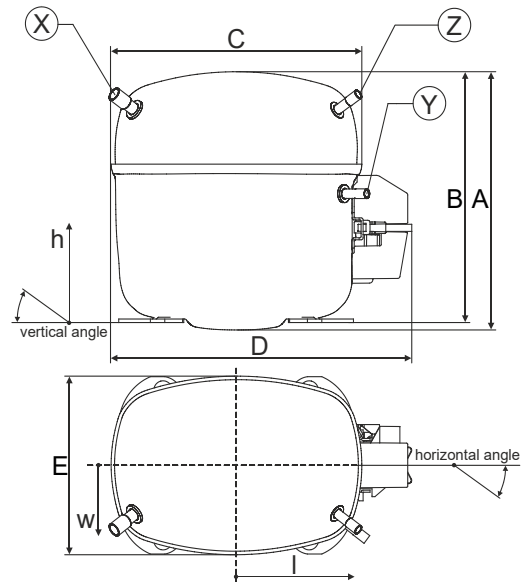
ULT - ready

Model

Designation	MS18UHULTM	115V/60Hz 1~	Sales code:	104M0810
-------------	-------------------	--------------	-------------	-----------------

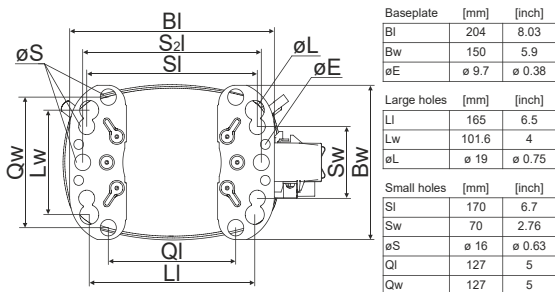
Compressor dimensions

Housing	A Height	219mm / 8,62in
	B Height	213mm / 8,39in
	C Length shell	218mm / 8,58in
	D Length w. cover	255mm / 10,04in
	E Width	151mm / 5,94in

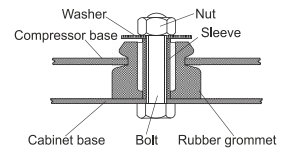


Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 9,54-9,72	øi 6,41-6,59	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,38-0,38	øi 0,25-0,26	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	37°	37°	143°
Vertical angle	±2°	30°	0°	150°
Position l/h/w	[mm]	107/193/55	115/110/63	-107/193/55
	[in]	4,2/7,6/2,2	4,5/4,3/2,5	-4,2/7,6/2,2
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

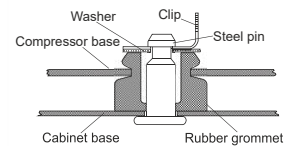
Compressor fixation



Bolt joint



Snap-on



Mounting accessories

	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

ULT-ready. Compressor for low-temp-stage of cascade refrigeration systems.

No warranty if compressor operated relevant time outside of published operation limits.

Contact SECOP-Sales to agree on warranty limits (depends on kind of application).

ULT - ready

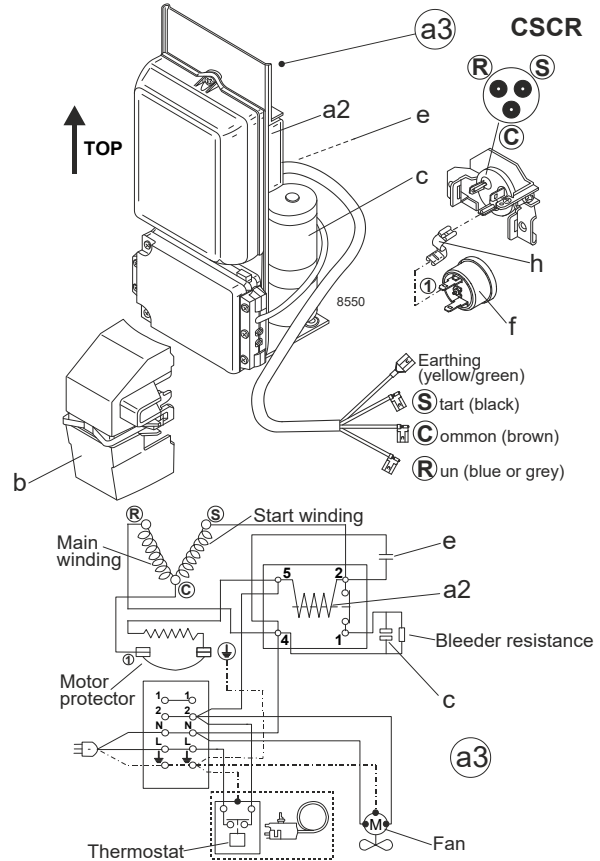
Model

Designation	MS18UHULTM 115V/60Hz	Conf. 1	Sales code:	104M0810
-------------	-----------------------------	---------	-------------	-----------------

Configuration

Motorconfiguration	CSCR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R170
Application	LBP
Voltage range	103-127V
Starting torque	HST
Approvals	UL

Electrical accessories / wiring diagram

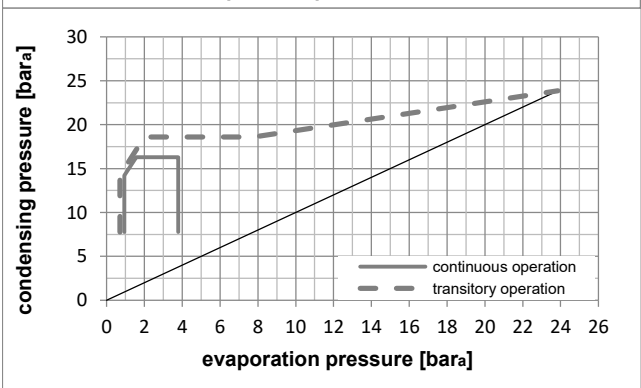
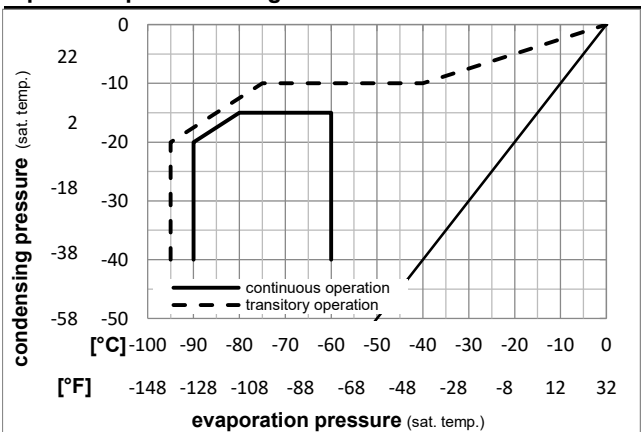


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

Operation pressure range



Components (protector + ~holder + cover: pre assembled)

a3	SC starter kit (550mm)	117-7801
h	protector holder	117U0439
f	ext. protector (T1100)	117U3219
b	plastic cover	117U1021

Alternative comp. (protector + ~holder + cover: pre assemb.)

a2	potential relay (RVA 7AA3R)	117-7441
e	run capacitor (23,5µF, 6.3mm)	117-7133
c	start capacitor (280µF, 6.3mm)	117U5350
h	protector holder	117U0439
f	ext. protector (T1100)	117U3219
b	plastic cover	117U1021

ULT - ready

Model

Designation **MS18UHULTM 115V/60Hz** Conf. 1 Sales code: **104M0810**

Optimization + standard conditions

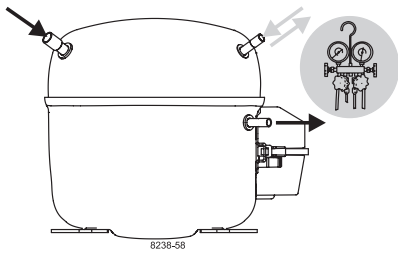
R170, 115V/60Hz, CSCR, fan 3m/s, UL

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)					Power consumption					
				Return gas temp.					Current consumption						
			Liquid temp.		Cooling capacity			COP		EER		P1	I		Ref. mass flow
pe	pc	RGT	Tliq		[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
[°C]	-90	-15	-20	-15	211,2	721	181,8	0,81	2,75	0,69	262,0	3,54	1,93	1	
[°F]	-130	5	-4	5											
[°C]	-90	-20	-20	-20	243,5	832	209,6	0,91	3,09	0,78	269,1	3,58	2,14	2	
[°F]	-130	-4	-4	-4											
[°C]	-90	-25	-20	-25	277,6	948	238,9	1,03	3,50	0,88	270,5	3,59	2,36	3	
[°F]	-130	-13	-4	-13											
[°C]	-90	-30	-20	-30	312,8	1068	269,2	1,17	4,00	1,01	267,0	3,56	2,57	4	
[°F]	-130	-22	-4	-22											
[°C]	-90	-35	-20	-35	348,4	1190	299,9	1,35	4,59	1,16	259,1	3,51	2,77	5	
[°F]	-130	-31	-4	-31											
[°C]	-90	-40	-20	-40	383,9	1311	330,3	1,55	5,30	1,34	247,3	3,44	2,96	6	
[°F]	-130	-40	-4	-40											

Performance tables

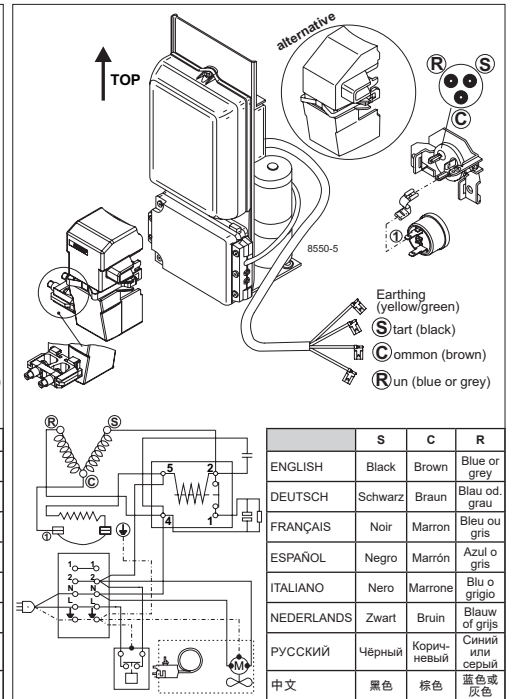
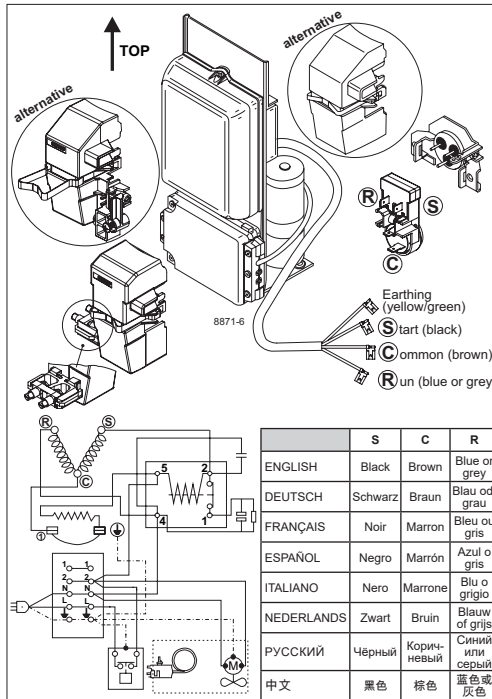
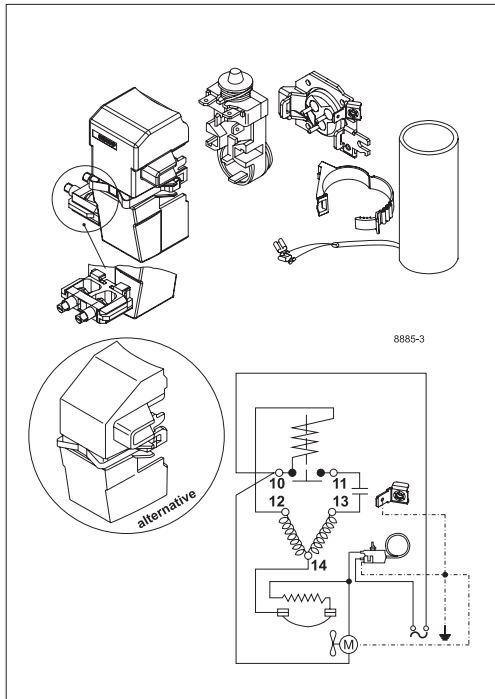
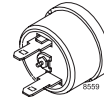
R170, 115V/60Hz, CSCR, fan 3m/s, UL

	pe	Cooling capacity			COP		EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-90	-130	277,6	948	238,9	1,03	3,50	0,88	270,5	3,59	2,36
cond. pressure	-85	-121	416,8	1424	358,7	1,27	4,34	1,09	327,9	3,95	3,55
pc= -25/-13	-80	-112	589,8	2014	507,6	1,53	5,23	1,32	385,0	4,34	5,03
return gas temp.	-75	-103	800,4	2734	688,9	1,82	6,21	1,56	440,2	4,74	6,84
RGT= -20/-4	-70	-94	1052,3	3594	905,6	2,14	7,31	1,84	491,4	5,13	9,03
liquid temp	-65	-85	1349,1	4607	1161,0	2,51	8,58	2,16	536,8	5,49	11,62
Tliq= -25/-13	-60	-76	1694,0	5785	1457,9	2,95	10,07	2,54	574,5	5,80	14,66
[°C / °F]	-90	-130	348,4	1190	299,9	1,35	4,59	1,16	259,1	3,51	2,77
cond. pressure	-85	-121	497,5	1699	428,2	1,63	5,55	1,40	305,9	3,80	3,96
pc= -35/-31	-80	-112	682,5	2331	587,4	1,95	6,66	1,68	350,0	4,10	5,44
return gas temp	-75	-103	907,3	3099	780,8	2,33	7,96	2,01	389,3	4,37	7,26
RGT= -20/-4	-70	-94	1175,5	4015	1011,7	2,79	9,51	2,40	421,9	4,61	9,43
liquid temp	-65	-85	1490,9	5092	1283,1	3,34	11,41	2,88	446,1	4,79	12,00
Tliq= -35/-31	-60	-76	1856,9	6342	1598,0	4,04	13,79	3,47	459,9	4,88	15,02



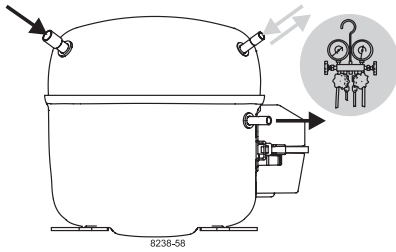
SCE Compressors

(External Protector)



	S	C	R
ENGLISH	Black	Brown	Blue or grey
DEUTSCH	Schwarz	Braun	Blau od. grau
FRANÇAIS	Noir	Marron	Bleu ou gris
ESPAÑOL	Negro	Marrón	Azul o gris
ITALIANO	Nero	Marrone	Blu o grigio
NEDERLANDS	Zwart	Bruin	Blauw of grijs
РУССКИЙ	Чёрный	Коричневый	Синий или серый
中文	黑色	棕色	蓝色或灰色

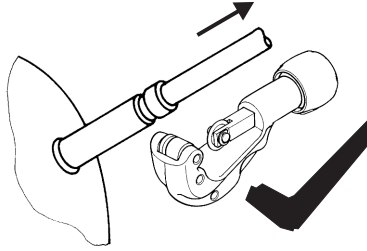
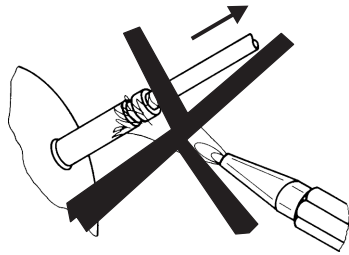
	S	C	R
ENGLISH	Black	Brown	Blue or grey
DEUTSCH	Schwarz	Braun	Blau od. grau
FRANÇAIS	Noir	Marron	Bleu ou gris
ESPAÑOL	Negro	Marrón	Azul o gris
ITALIANO	Nero	Marrone	Blu o grigio
NEDERLANDS	Zwart	Bruin	Blauw of grijs
РУССКИЙ	Чёрный	Коричневый	Синий или серый
中文	黑色	棕色	蓝色或灰色



SCE Compressors (External Protector)

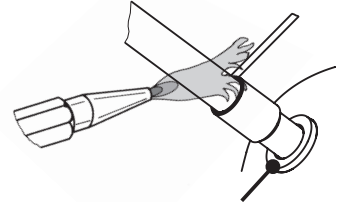


Service/Repair – R290



8545

Brazing on Suction Connectors (Direct Intake)



**! max. 350°C/662°F !
at socket**
brazing solder: phosphor (LP7) or silver

8882

Refer to Product Bulletin:
Brazing on Suction Connectors
(SCE Compressors with Direct Suction Intake)

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved. www.secop.com