

## Single Pack TFS4.5FT 115-127V 60Hz CSIR

Single pack code number: **195B4669**

Position	Title	Code	Amount
1	Compressor TFS4.5FT	102G3432	1
2	Starting relay (overload protector MRP39AIL-6)	117U4113	1
3	Cord relief	117U0349	1
4	Cover	117U1021	1
5	Bolt joint for one compressor   M6   ø16mm	118-1917	1

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## Model

Designation	<b>TFS4.5FT</b>	115-127V/60Hz 1~	Sales code:	<b>102G3432</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a, R513A, 0</b>
Oil viscosity	15cST	Displacement	4,63cm <sup>3</sup> / 0,28cu.in
Oil quantity	285cm <sup>3</sup> / 9,7fl.oz	Compressors on pallet	125
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	1790cm <sup>3</sup> / 60,5fl.oz		
Weight	6,7kg / 14,8lbs		
Motor protection	external		
Winding resistance main	3,33Ω (at 25°C)		
Winding resistance aux	8,76Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with TFS4.5FT

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	CSIR	RSIR
Power supply (nominal)	115-127V/60Hz	115-127V/60Hz
Number of phases	1	1
Voltage range	95-135V	95-135V
Approvals	UL	UL
Starting torque	HST	LST
Note	- / -	

## Applications with TFS4.5FT

	<b>Conf. 1</b>	<b>Conf. 2</b>
Refrigerant	R134a	R134a
Application	LBP+MBP	LBP+MBP
System cooling	fan 1,5m/s	fan 1,5m/s
Hot gas defrost	-/-	-/-
Long interval pull down	OK	OK

## Electrical data - Configurations with TFS4.5FT

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	PTC
Run capacitor	-/-	-/-
Start capacitor	320μF	-/-
LRA (locked rotor amps / 4s/ U(N))	20,1A	
RLA (rated load amps / 1s/ U(N))	2,4A	-/-A
Cut in current (U(N))	20,1A	

## Model

Designation

**TFS4.5FT**

115-127V/60Hz 1~

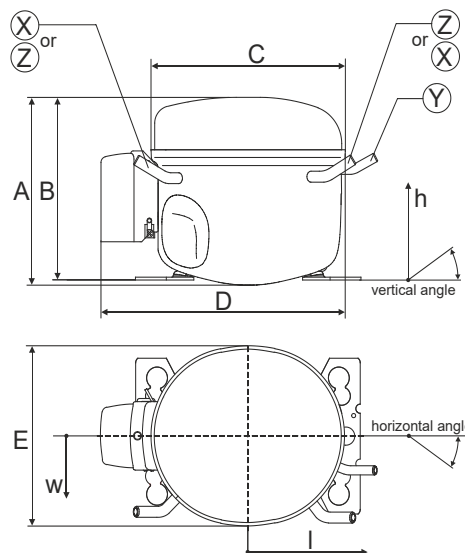
Sales code:

**102G3432**

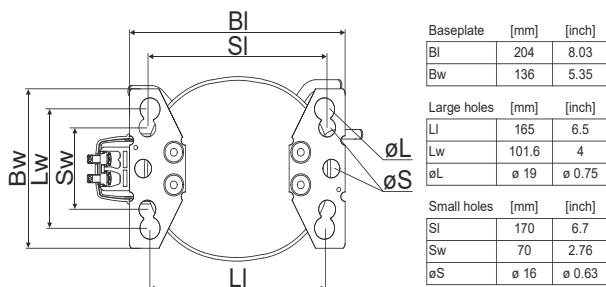
## Compressor dimensions

Housing	A Height	173mm / 6,81in
	B Height	169mm / 6,65in
	C Length shell	176mm / 6,93in
	D Length w. cover	222mm / 8,74in
	E Width	157mm / 6,18in

Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 6,41-6,59	øi 4,86-5,02	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,25-0,26	øi 0,19-0,2	øi 0,25-0,26
Material		steel/CU	steel/CU	steel/CU
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	150°	28°	31,5°
Position l/h/w	[mm]	-102/105/66	117/107/29	96/105/71
	[in]	-4/4,1/2,6	4,6/4,2/1,1	3,8/4,1/2,8
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

Provision for PE Grounding is located at the PE Stamp on the compressor

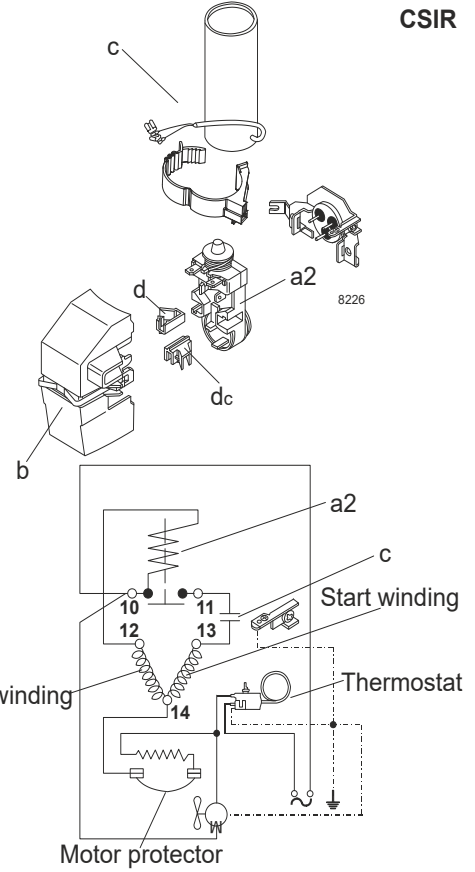
### Model

Designation	<b>TFS4.5FT</b>	<b>115-127V/60Hz</b>	Conf. 1	Sales code:	<b>102G3432</b>
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### Configuration

Motorconfiguration	CSIR
Power supply (nominal)	115-127V/60Hz 1~
Refrigerant	R134a
Application	LBP+MBP
Voltage range	95-135V
Starting torque	HST
Approvals	UL

### Electrical accessories / wiring diagram



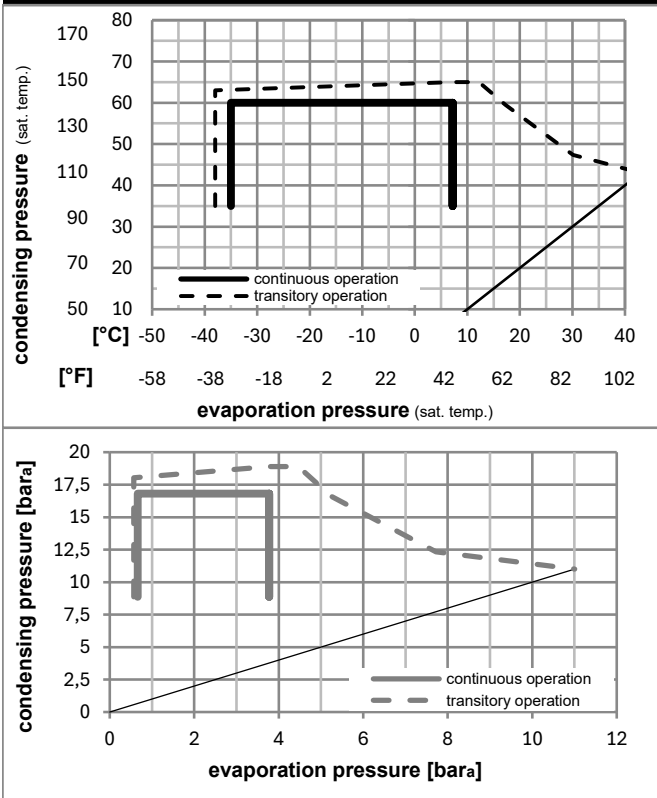
### Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 1,5m/s

### Operation pressure range



### Components

a2	assy. relay + ext. protector (MRP39AIL-6)	117U4126
c	start capacitor (320µF)	117U5022
b	plastic cover	117U1021
d/dc	cord relief	117U0349
d/dc	cord relief	117U0349

### Alternative components

b	plastic cover	117U1027
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## Model

Designation **TFS4.5FT** **115-127V/60Hz** Conf. 1 Sales code: **102G3432**

## Optimization + standard conditions

R134a, 115V/60Hz, CSIR, fan 1,5m/s, UL

	Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Power consumption		ASHRAE LBP	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				I	m		
[°C]	-23	54	32	32	139,8	477	120,3	1,10	3,76	0,95	127,1	2,02	2,71	
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	102,0	348	87,8	0,84	2,88	0,73	121,0	1,99	2,44	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	82,3	281	70,8	0,88	3,01	0,76	93,5	1,87	1,81	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	298,3	1019	256,7	1,51	5,17	1,30	197,2	2,41	6,51	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	231,1	789	198,9	1,27	4,34	1,09	181,9	2,31	5,59	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	259,1	885	223,0	1,47	5,03	1,27	176,1	2,28	6,07	EN12900 MBP
[°F]	14	113	68	113										

## Performance tables

R134a, 115V/60Hz, CSIR, fan 1,5m/s, UL

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]		[Btu/Wh]	[kcal/Wh]			
[°C / °F]	-35	-31	75,0	256	64,5	0,81	2,78	0,70	92,1	1,87	1,62
cond. pressure	-23	-10	141,0	481	121,3	1,12	3,81	0,96	126,3	2,00	3,06
pc= 45/113	-15	5	214,2	732	184,4	1,37	4,69	1,18	156,0	2,16	4,67
return gas temp.	-9	15	275,4	941	237,0	1,54	5,27	1,33	178,4	2,29	6,03
RGT= 32/90	-4	25	346,7	1184	298,4	1,71	5,83	1,47	202,9	2,47	7,63
liquid temp	0	32	402,6	1375	346,5	1,82	6,21	1,56	221,4	2,61	8,90
Tliq= 45/113	7,2	45	519,9	1776	447,5	2,01	6,86	1,73	258,7	2,93	11,61
[°C / °F]	-35	-31	56,0	191	48,2	0,64	2,17	0,55	88,0	1,87	1,33
cond. pressure	-23	-10	112,8	385	97,0	0,89	3,03	0,76	127,1	2,02	2,70
pc= 55/131	-15	5	179,9	614	154,8	1,12	3,84	0,97	160,1	2,18	4,33
return gas temp	-9	15	237,3	810	204,2	1,29	4,39	1,11	184,5	2,32	5,74
RGT= 32/90	-4	25	304,8	1041	262,3	1,45	4,94	1,24	210,9	2,50	7,42
liquid temp	0	32	358,3	1224	308,3	1,55	5,30	1,34	230,7	2,64	8,76
Tliq= 55/131	7,2	45	471,2	1609	405,5	1,74	5,96	1,50	270,2	2,96	11,65

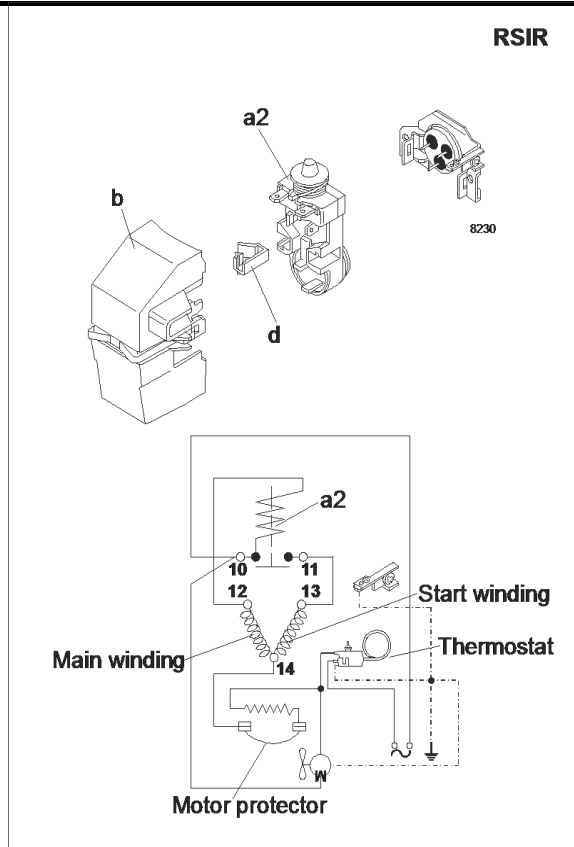
### Model

Designation	<b>TFS4.5FT</b>	<b>115-127V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>102G3432</b>
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### Configuration

Motorconfiguration	RSIR
Power supply (nominal)	115-127V/60Hz 1~
Refrigerant	R134a
Application	LBP+MBP
Voltage range	95-135V
Starting torque	LST
Approvals	UL

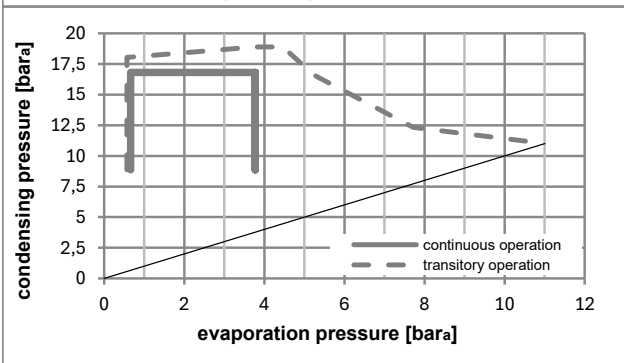
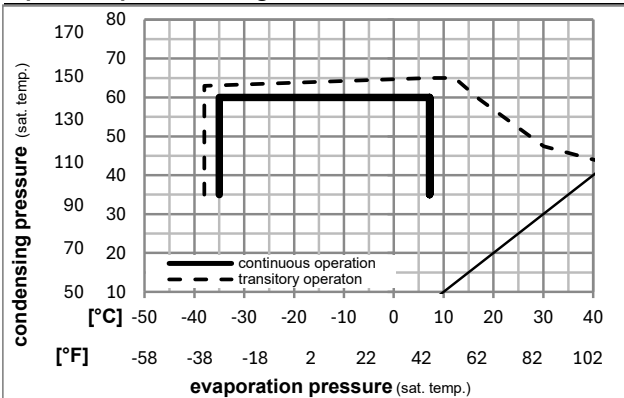
### Electrical accessories / wiring diagram



### Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 1,5m/s

### Operation pressure range



### Components

a2	assy. relay + ext. protector (MRP39AIL-6)	117U4113
b	plastic cover	117U1021
d/dc	cord relief	117U0349

## Model

Designation **TFS4.5FT** **115-127V/60Hz** Conf. 2 Sales code: **102G3432**

## Optimization + standard conditions

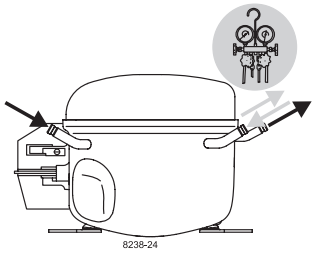
R134a, 115V/60Hz, RSIR, fan 1,5m/s, UL

		Evaporating pressure (saturation temperature)			Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Current consumption		Ref. mass flow					
[°C]	[°F]											[W]	[A]	[kg/h]							
-23	-10	54	32	32	139,8	477	120,3	1,10	3,76	0,95	127,1	2,02	2,71			ASHRAE LBP					
-25	-13	55	32	55	102,0	348	87,8	0,84	2,88	0,73	121,0	1,99	2,44			cecomaf LBP					
-35	-31	40	20	40	82,3	281	70,8	0,88	3,01	0,76	93,5	1,87	1,81			EN12900 LBP					
-7	20	54	35	46	298,3	1019	256,7	1,51	5,17	1,30	197,2	2,41	6,51			ASHRAE MBP					
-10	14	55	32	55	231,1	789	198,9	1,27	4,34	1,09	181,9	2,31	5,59			cecomaf MBP					
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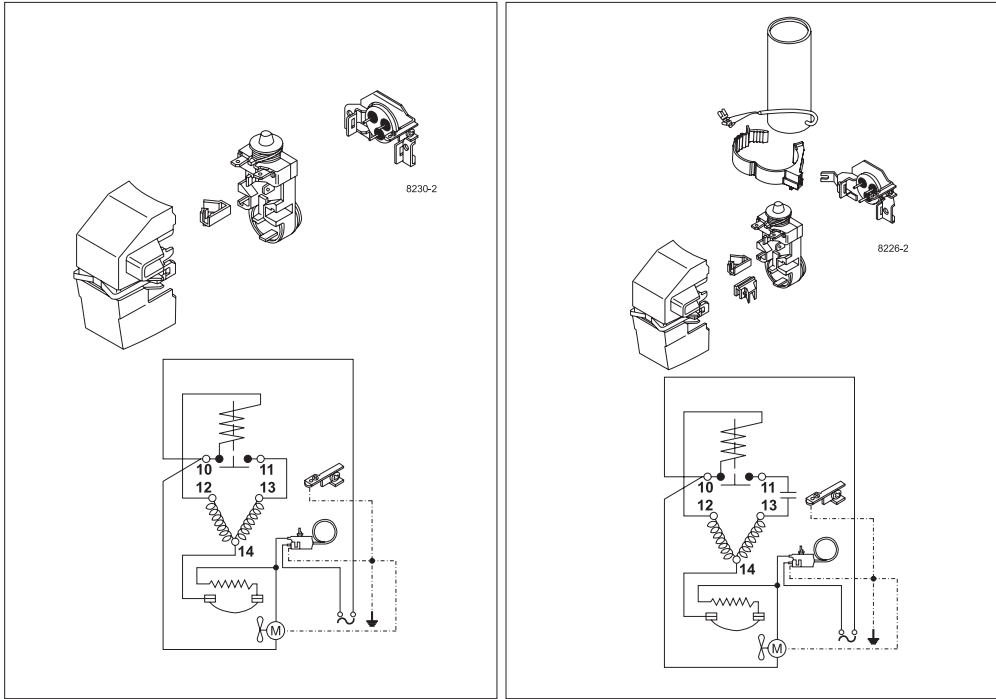
## Performance tables

R134a, 115V/60Hz, RSIR, fan 1,5m/s, UL

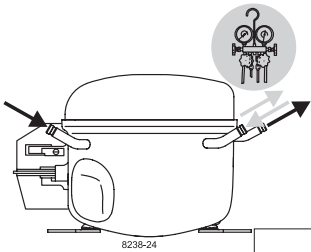
	pe		Cooling capacity			COP	EER	P1			I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C / °F]	-35	-31	75,0	256	64,5	0,81	2,78	0,70	92,1	1,87	1,62	
cond. pressure	-23	-10	141,0	481	121,3	1,12	3,81	0,96	126,3	2,00	3,06	
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RGT= 32/90	-4	25	346,7	1184	298,4	1,71	5,83	1,47	202,9	2,47	7,63	
liquid temp	0	32	402,6	1375	346,5	1,82	6,21	1,56	221,4	2,61	8,90	
Tliq= 45/113	7,2	45	519,9	1776	447,5	2,01	6,86	1,73	258,7	2,93	11,61	
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liquid temp	0	32	358,3	1224	308,3	1,55	5,30	1,34	230,7	2,64	8,76	
Tliq= 55/131	7,2	45	471,2	1609	405,5	1,74	5,96	1,50	270,2	2,96	11,65	



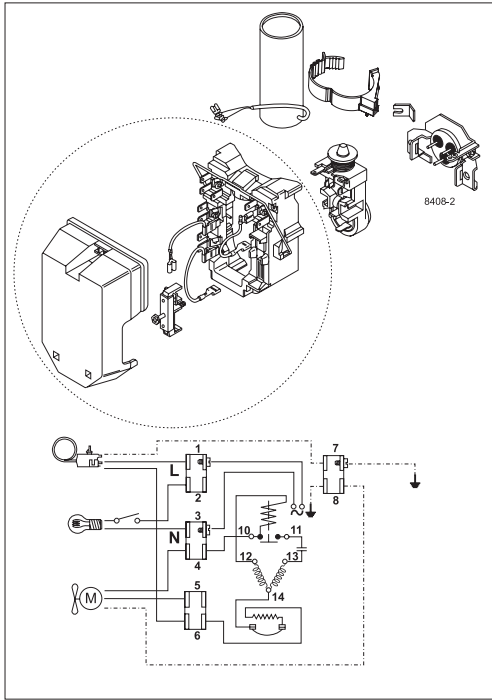
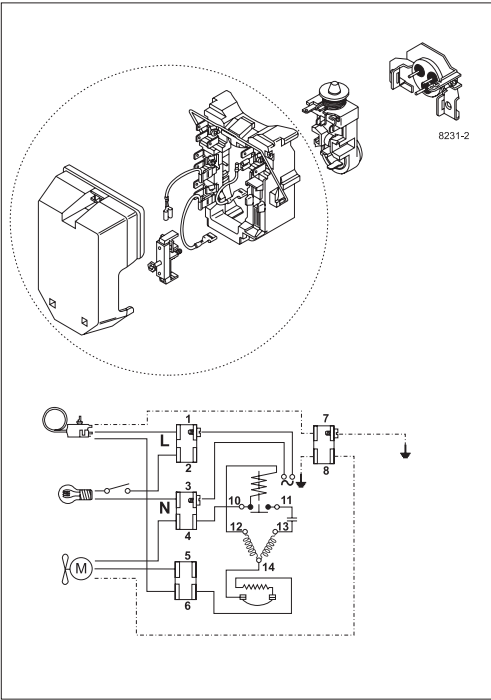
# TF Compressors







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