

DLE5.7CNT

Energy-optimized Tropical Compressor

R290

220-240V 50/60Hz

General

Code number	102H4678
Approvals	UL984, CB IEC 60335-2-34
Compressors on pallet	100

Application

Application	LBP/MBP			
Frequency	Hz	50	60	
Evaporating temperature	°C	-35 to 7.2	-35 to 7.2	
Voltage range	V	187 to 254	187 to 254	
Max. condensing temperature continuous (short)	°C	65 (65)	65 (65)	
Max. winding temperature continuous (short)	°C	125 (135)	125 (135)	

Cooling requirements

Frequency	Hz	50			60		
Application		LBP	MBP	HBP	LBP	MBP	HBP
32°C		F ₂	F ₂	–	F ₂	F ₂	–
38°C		F ₂	F ₂	–	F ₂	F ₂	–
43°C		F ₂	F ₂	–	F ₂	F ₂	–
Remarks on application:							

Motor

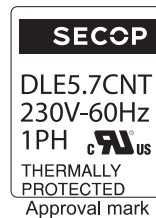
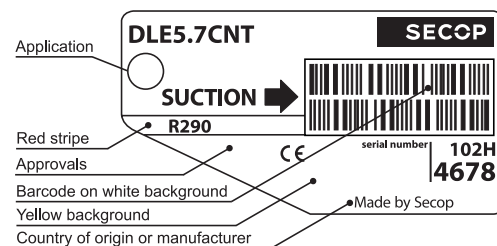
Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST LST	A	9.3	8.4
Cut in Current, HST LST	A	9.3	13.3
Resistance, main start winding (25°C)	Ω	10.8	11.4

Design

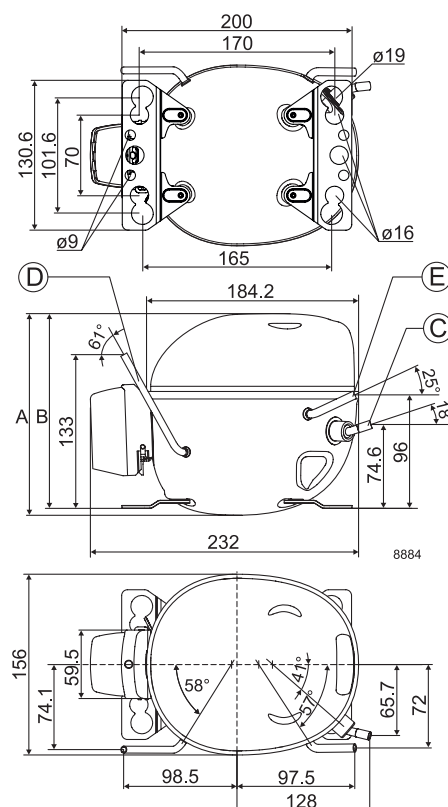
Displacement	cm ³	5.70
Oil quantity (type)	cm ³	220 (polyolester)
Maximum refrigerant charge	g	150
Free gas volume in compressor	cm ³	1325
Weight without electrical equipment	kg	8.0

Dimensions

Height	mm	A	175
		B	169
		B1	–
		B2	–
Suction connector	location/I.D. mm angle	C	8.2 18°
	material comment	Copper Rubber plug	
Process connector	location/I.D. mm angle	D	6.5 61°
	material comment	Copper Rubber plug	
Discharge connector	location/I.D. mm angle	E	6.5 25°
	material comment	Copper Rubber plug	
Oil cooler connector	location/I.D. mm angle	F	–
	material comment	–	
Connector tolerance	I.D. mm	±0.09	
Remarks:			



- S = Static cooling normally sufficient
- O = Oil cooling
- F₁ = Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature)
- F₂ = Fan cooling 3.0 m/s necessary
- SG = Suction gas cooling normally sufficient
- = not applicable in this area



EN 12900 LBP220V, 50Hz, CSIR/RSIR, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			168	214	267	287	329	401	485	548	583	697	829	893			
Power cons. in W			154	172	188	193	203	217	229	234	240	250	259	262			
Current cons. in A			1.27	1.33	1.39	1.40	1.44	1.48	1.52	1.55	1.56	1.60	1.63	1.64			
COP in W/W			1.10	1.25	1.42	1.48	1.62	1.85	2.11	2.31	2.43	2.79	3.20	3.40			

EN 12900 MBP220V, 50Hz, CSIR/RSIR, fan cooling F₂

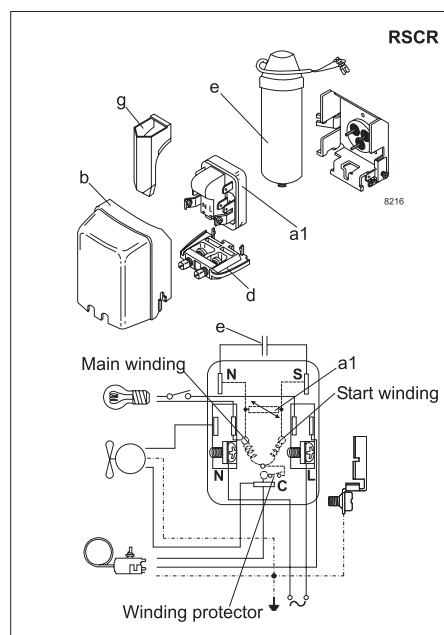
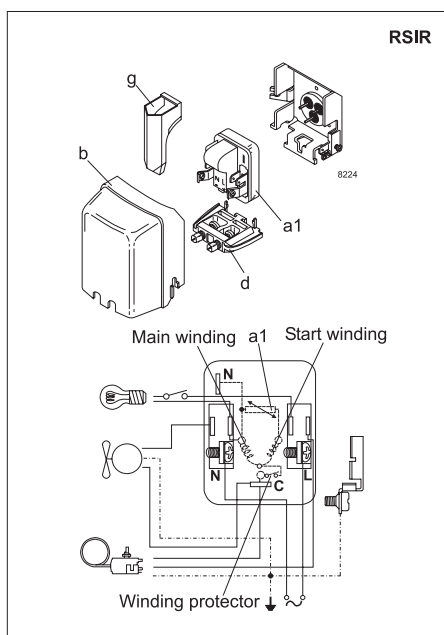
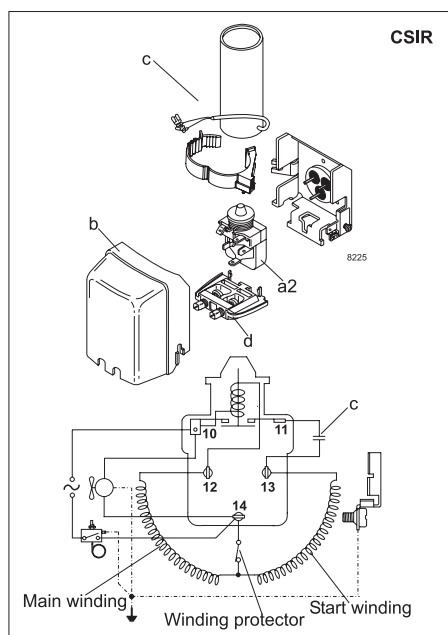
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			156	200	250	269	308	376	455	515	547	655	779	839			
Power cons. in W			157	176	194	200	211	226	240	249	253	266	277	281			
Current cons. in A			1.28	1.35	1.41	1.43	1.46	1.52	1.57	1.60	1.62	1.66	1.70	1.72			
COP in W/W			0.99	1.14	1.29	1.35	1.46	1.66	1.89	2.07	2.16	2.47	2.81	2.98			

ASHRAE LBP220V, 50Hz, CSIR/RSIR, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			166	217	274	295	339	415	503	569	606	726	865	934			
Power cons. in W			155	176	196	203	215	233	250	261	267	282	297	303			
Current cons. in A			1.30	1.37	1.44	1.47	1.52	1.59	1.66	1.71	1.73	1.80	1.87	1.90			
COP in W/W			1.07	1.23	1.40	1.46	1.58	1.78	2.01	2.18	2.27	2.57	2.92	3.08			

ASHRAE MBP/HBP220V, 50Hz, CSIR/RSIR, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			148	194	245	264	303	370	449	507	540	646	770	830			
Power cons. in W			154	175	194	201	213	231	248	258	264	279	293	299			
Current cons. in A			1.30	1.37	1.45	1.47	1.52	1.59	1.66	1.71	1.73	1.80	1.87	1.90			
COP in W/W			0.96	1.11	1.26	1.31	1.42	1.6	1.81	1.96	2.05	2.32	2.63	2.77			



Accessories for	DLE5.7CNT	Figure	Code number
PTC starting device	6.3 mm spade connectors	a1	—
	4.8 mm spade connectors		—
ePTC starting device	4.8 mm spade connectors		103N0050
Starting relay	6.3 mm spade connectors	a2	117U7002
Start. capacitor 80 µF	6.3 mm spade connectors	c	117U5015
Cover		b	103N0491
Run capacitor 5 µF	6.3 mm spade connectors	e	—
(optional)	4.8 mm spade connectors		117-7129
Cord relief		d	103N1010
Protection screen for PTC		g	—

Test conditions	EN 12900		ASHRAE	
	LBP	MBP	LBP	MBP
Condensing temperature	40°C	45°C	54.4°C	54.4°C
Ambient temperature	32°C	32°C	32.2°C	35°C
Suction gas temperature	20°C	20°C	32.2°C	35°C
Liquid temperature	no subcooling		32.2°C	46.1°C

Mounting accessories		Code number
Bolt joint for one comp.	Ø: 16 mm	118-1917
Bolt joint in quantities	Ø: 16 mm	118-1918
Snap-on in quantities	Ø: 16 mm	118-1919

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EN 12900 LBP230V, 60Hz, CSIR/RSIR, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			201	256	320	343	394	480	581	657	698	834	989	1065			
Power cons. in W			173	192	212	218	230	248	265	276	281	296	309	315			
Current cons. in A			1.19	1.24	1.30	1.32	1.36	1.41	1.47	1.50	1.52	1.57	1.62	1.64			
COP in W/W			1.17	1.33	1.51	1.58	1.71	1.93	2.19	2.38	2.48	2.82	3.20	3.38			

EN 12900 MBP230V, 60Hz, CSIR/RSIR, fan cooling F₂

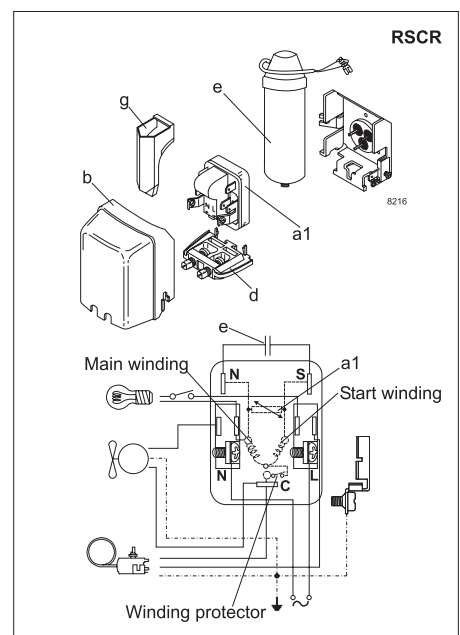
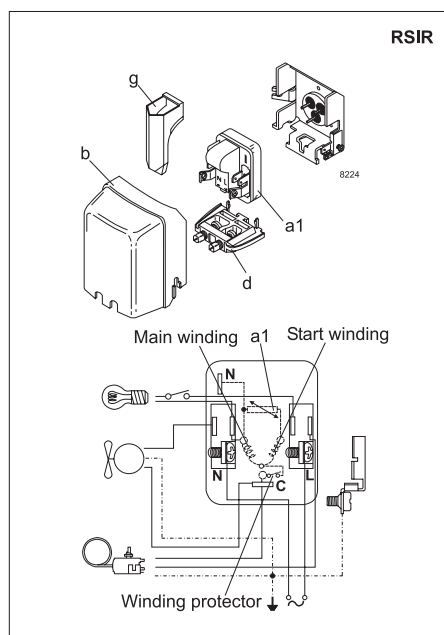
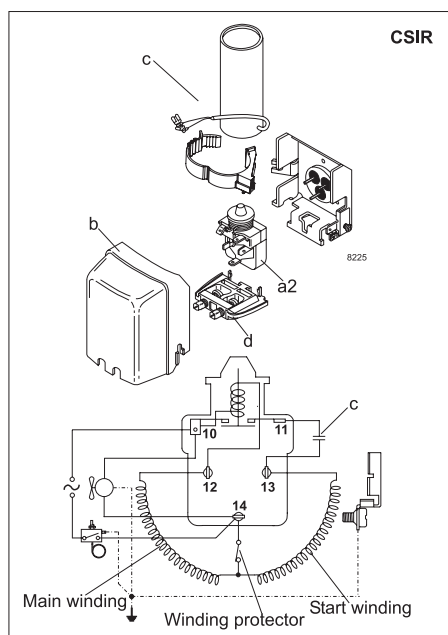
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			187	239	299	322	369	451	546	617	656	783	930	1001			
Power cons. in W			176	197	218	225	239	259	278	291	297	314	331	337			
Current cons. in A			1.20	1.26	1.32	1.34	1.38	1.45	1.51	1.56	1.58	1.64	1.70	1.72			
COP in W/W			1.06	1.21	1.37	1.43	1.55	1.74	1.96	2.12	2.21	2.49	2.81	2.97			

ASHRAE LBP230V, 60Hz, CSIR/RSIR, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			198	259	328	353	406	497	603	682	726	869	1033	1114			
Power cons. in W			175	197	221	229	244	267	290	305	312	334	355	363			
Current cons. in A			1.21	1.28	1.36	1.38	1.44	1.52	1.61	1.66	1.69	1.78	1.86	1.90			
COP in W/W			1.14	1.31	1.49	1.55	1.67	1.86	2.08	2.24	2.33	2.60	2.91	3.07			

ASHRAE MBP/HBP230V, 60Hz, CSIR/RSIR, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			177	232	293	316	363	444	538	608	647	773	919	990			
Power cons. in W			173	195	218	226	241	264	287	301	309	330	350	359			
Current cons. in A			1.21	1.28	1.36	1.38	1.44	1.52	1.61	1.66	1.69	1.78	1.86	1.90			
COP in W/W			1.03	1.19	1.34	1.40	1.50	1.68	1.88	2.02	2.10	2.34	2.62	2.76			



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Suction gas temperature	20°C	20°C	32.2°C	35°C
Liquid temperature	no subcooling		32.2°C	46.1°C

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