

Datasheets

DLE4.8CN Energy-optimized LBP/MBP R290 115-127V 60Hz

General

Code number	102H3582
Code number (pre-assembled CSIR start equipment)	102H3583
Approvals	UL984
Compressors on pallet	100
Compressors on pallet (with CSIR start equipment)	80

Application

Application	LBP/MBP			
	Hz	50	60	
Frequency	Hz	50	60	
Evaporating temperature	°F	-	-31 to 45	
Voltage range	V	-	95 - 135	
Max. condensing temperature continuous (short)	°F	-	131 (149)	
Max. winding temperature continuous (short)	°F	-	257 (275)	

Cooling requirements

Frequency	Hz	50			60		
		LBP	MBP	HBP	LBP	MBP	HBP
90°F		-	-	-	S	S	-
100°F		-	-	-	S	S	-
110°F		-	-	-	F ₂	F ₂	-

Remarks on application: For evaporation temperatures higher than 32 °F do not run compressor at condensing temperatures higher 122 °F in steady state operation.

Motor

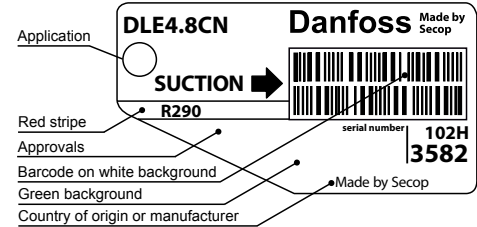
Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST LST	A	21.4	17.3
Cut in Current, HST LST	A	21.4	24.9
Resistance, main start winding (77°F)	Ω	2.8	6.4

Design

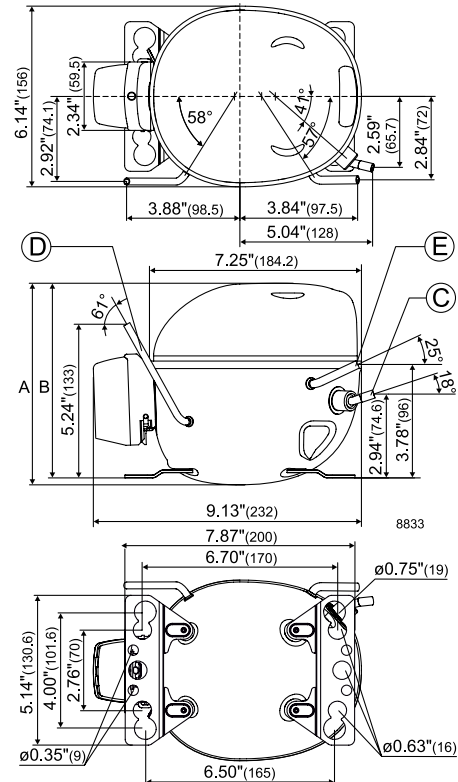
Displacement	cu.in	0.29
Oil quantity (type)	fl.oz.	7.8 (polyolester)
Maximum refrigerant charge	oz.	5.3
Free gas volume in compressor	fl.oz.	49.5
Weight without electrical equipment	lbs.	18.0

Dimensions

Height	inch	A	6.90
		B	6.64
		B1	-
		B2	-
Suction connector	location, I.D. in. angle	C	0.320-0.327 18°
	material comment		Copper Rubber plug
Process connector	location, I.D. in. angle	D	0.252-0.259 60°
	material comment		Copper Rubber plug
Discharge connector	location, I.D. in. angle	E	0.252-0.259 25°
	material comment		Copper Rubber plug
Oil cooler connector	location, I.D. in. angle	F	-
	material comment		-
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



ASHRAE LBP

 115V, 60Hz, fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			544	741	898	971	1239	1553	1694	1921	2349	2443	2846	2900	3123		
Power cons. in W			150	172	188	194	215	234	242	252	268	270	280	281	285		
Current cons. in A			2.42	2.52	2.60	2.63	2.75	2.88	2.93	3.00	3.13	3.15	3.25	3.26	3.30		
EER in BTU/Wh			3.62	4.30	4.79	5.00	5.77	6.63	7.00	7.62	8.78	9.04	10.20	10.30	11.00		

ASHRAE MBP/HBP

 115V, 60Hz, fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			486	663	803	867	1106	1386	1511	1713	2092	2175	2531	2579	2775		
Power cons. in W			149	171	186	192	213	232	239	249	264	267	277	278	282		
Current cons. in A			2.42	2.52	2.60	2.63	2.75	2.88	2.93	3.00	3.13	3.15	3.25	3.26	3.30		
EER in BTU/Wh			3.26	3.88	4.32	4.51	5.20	5.98	6.32	6.87	7.91	8.14	9.15	9.28	9.85		

EN 12900 LBP

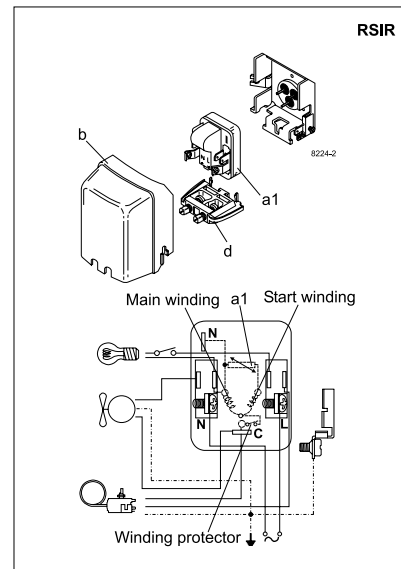
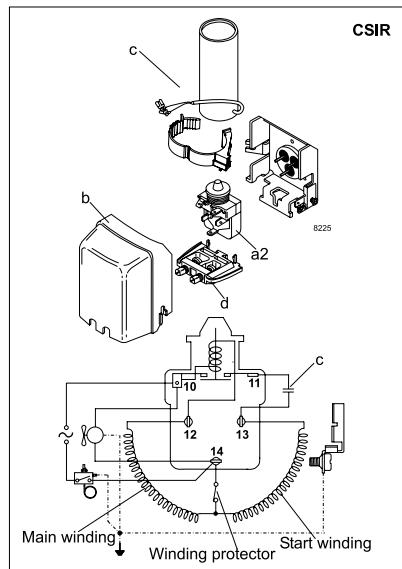
 115V, 60Hz, fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in W			175	224	265	284	359	448	488	554	678	706	823	839	904		
Power cons. in W			157	172	183	188	204	220	226	235	249	252	262	263	268		
Current cons. in A			2.37	2.47	2.53	2.56	2.65	2.73	2.76	2.80	2.85	2.86	2.89	2.89	2.90		
COP in W/W			1.12	1.30	1.45	1.52	1.76	2.04	2.16	2.36	2.72	2.80	3.14	3.19	3.38		

EN 12900 MBP

 115V, 60Hz, fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in W			161	208	248	266	336	420	457	518	634	659	768	782	842		
Power cons. in W			159	177	189	195	212	230	236	246	261	264	274	275	279		
Current cons. in A			2.39	2.48	2.55	2.58	2.67	2.77	2.80	2.85	2.93	2.94	2.99	3.00	3.02		
COP in W/W			1.01	1.18	1.31	1.37	1.58	1.83	1.93	2.11	2.43	2.50	2.81	2.85	3.02		



Accessories for	DLE4.8CN	Figure	Code number
ePTC starting device	1/4 in. spade connectors	a1	103N0058 *)
Starting relay	1/4 in. spade connectors	a2	117U7011
Start. capacitor 240 µF	1/4 in. spade connectors	c	117U5023
Cover		b	103N0492
Cord relief		d	103N1010

*) Remarks: RSIR and RSCR option available in 4th quarter 2015

Test conditions	EN 12900		ASHRAE	
	LBP	MBP	LBP	MBP
Condensing temperature	104°F	113°F	130°F	130°F
Ambient temperature	90°F	90°F	90°F	90°F
Suction gas temperature	68°F	68°F	90°F	95°F
Liquid temperature	no subcooling		90°F	115°F

Mounting accessories	Code number
Bolt joint for one comp. Ø: 3/4 in.	118-1949
Bolt joint for one comp. Ø: 5/8 in.	118-1946
Snap-on for one comp. Ø: 5/8 in.	118-1947



ASHRAE LBP 115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			555	756	916	990	1264	1585	1728	1959	2396	2492	2903	2958	3185		
Power cons. in W			145	165	180	186	205	223	230	240	254	257	266	267	271		
Current cons. in A			1.61	1.75	1.84	1.89	2.03	2.17	2.23	2.31	2.44	2.47	2.56	2.57	2.62		
EER in BTU/Wh			3.83	4.57	5.10	5.34	6.17	7.10	7.51	8.18	9.43	9.71	10.9	11.10	11.80		

ASHRAE MBP/HBP 115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

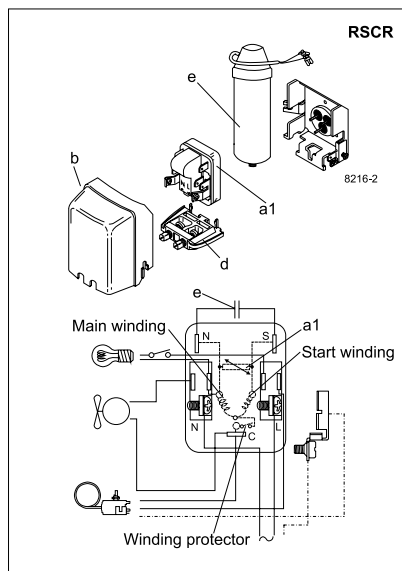
Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			496	676	819	885	1129	1414	1541	1747	2134	2219	2582	2630	2831		
Power cons. in W			143	164	178	184	203	221	228	237	251	254	263	264	267		
Current cons. in A			1.61	1.75	1.84	1.89	2.03	2.17	2.23	2.31	2.44	2.47	2.56	2.57	2.62		
EER in BTU/Wh			3.46	4.13	4.60	4.82	5.56	6.40	6.77	7.37	8.50	8.75	9.83	9.98	10.60		

EN 12900 LBP 115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in W			179	228	270	290	366	457	498	565	692	720	840	856	922		
Power cons. in W			151	165	175	180	195	210	215	224	237	240	249	250	255		
Current cons. in A			1.57	1.68	1.76	1.79	1.90	1.99	2.03	2.08	2.16	2.17	2.22	2.22	2.24		
COP in W/W			1.18	1.38	1.54	1.61	1.88	2.18	2.31	2.52	2.92	3.00	3.37	3.42	3.62		

EN 12900 MBP 115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in W			164	213	253	272	343	428	466	529	646	672	783	798	859		
Power cons. in W			153	170	181	186	203	219	225	234	248	251	260	261	265		
Current cons. in A			1.59	1.71	1.79	1.82	1.94	2.05	2.09	2.15	2.24	2.26	2.32	2.33	2.35		
COP in W/W			1.07	1.25	1.39	1.46	1.69	1.95	2.07	2.26	2.61	2.68	3.01	3.06	3.24		



Accessories for	DLE4.8CN	Figure	Code number
ePTC starting device	1/4 in. spade connectors	a1	103N0058 *)
Run capacitor 15 µF (optional)	1/4 in. spade connectors	e	117-7118 *)
Cover		b	103N0492
Cord relief		d	103N1010

*) Remarks: RSIR and RSCR option available in 4th quarter 2015

Test conditions	EN 12900		ASHRAE	
	LBP	MBP	LBP	MBP
Condensing temperature	104°F	113°F	130°F	130°F
Ambient temperature	90°F	90°F	90°F	90°F
Suction gas temperature	68°F	68°F	90°F	95°F
Liquid temperature	no subcooling		90°F	115°F

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