

Datasheets

DLE4CN Energy-optimized LBP/MBP Compressor R290, 220-240V 50Hz

General

Code number	102H4465
Approvals	EN 60335-2-34 w. Annex AA
Compressors on pallet	100

Application

Application	LBP/MBP		
	Hz	50	60
Frequency	Hz	50	60
Evaporating temperature	°C	-35 to 7.2	-
Voltage range	V	198 to 254	-
Max. condensing temperature continuous (short)	°C	55 (65)	-
Max. winding temperature continuous (short)	°C	125 (135)	-

Cooling requirements

Frequency	Hz	50			60		
		LBP	MBP	HBP	LBP	MBP	HBP
32°C		F ₂	F ₂	-	-	-	-
38°C		F ₂	F ₂	-	-	-	-
43°C		F ₂	F ₂	-	-	-	-

Remarks on application:
For evaporation temperatures higher than 0 °C do not run compressor at condensing temperatures higher 50 °C in steady state operation.

Motor

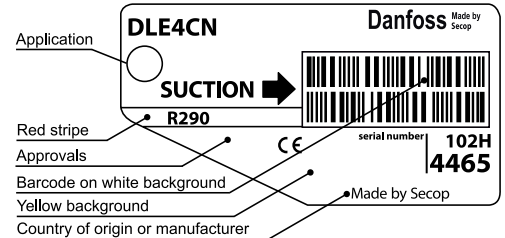
Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST LST	A	5.4	5.0
Cut in Current, HST LST	A	5.4	9.9
Resistance, main start winding (25°C)	Ω	20.3	11.7

Design

Displacement	cm ³	4.00
Oil quantity (type)	cm ³	230 (polyolester)
Maximum refrigerant charge	g	150
Free gas volume in compressor	cm ³	1390
Weight without electrical equipment	kg	8.2

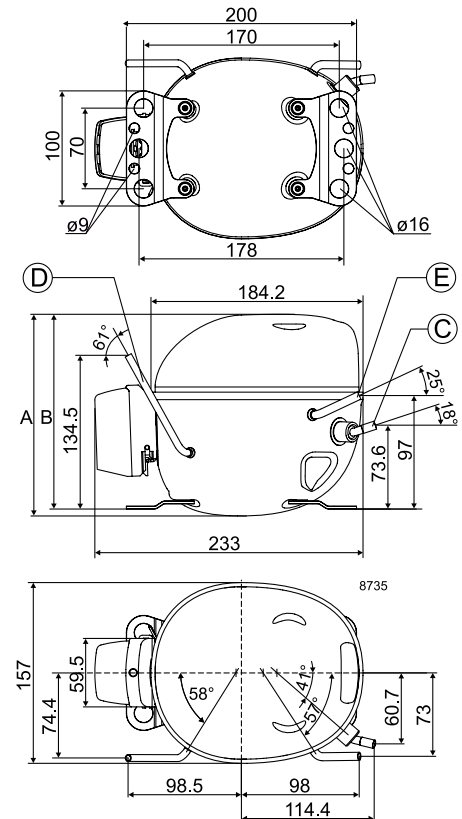
Dimensions

Height	mm	A	175
		B	169
		B1	-
		B2	-
Suction connector	location/I.D. mm angle	C	6.2 18°
	material comment		Copper Rubber plug
Process connector	location/I.D. mm angle	D	6.2 61°
	material comment		Copper Rubber plug
Discharge connector	location/I.D. mm angle	E	5.0 25°
	material comment		Copper Rubber plug
Oil cooler connector	location/I.D. mm angle	F	-
	material comment		-
Connector tolerance	I.D. mm		±0.09, on 5.0 +0.12/+0.22
Remarks:			



This product is approved for R290 regarding explosion safety according to standard EN 60335-1 and EN 60335-2-34

- 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 LBP

220V, 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			109	139	177	191	221	273	329	369	391	457	527	558			
Power cons. in W			98.2	109	119	123	130	139	148	153	155	161	165	166			
Current cons. in A			0.74	0.76	0.79	0.80	0.82	0.85	0.88	0.90	0.91	0.94	0.96	0.97			
COP in W/W			1.11	1.28	1.48	1.56	1.71	1.96	2.22	2.41	2.51	2.83	3.20	3.37			

EN 12900 MBP

220V, 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			98.7	128	164	178	207	255	309	347	367	430	495	525			
Power cons. in W			99.7	111	123	127	135	146	156	163	166	173	179	180			
Current cons. in A			0.74	0.77	0.80	0.81	0.84	0.87	0.91	0.93	0.94	0.97	1.00	1.01			
COP in W/W			0.99	1.15	1.33	1.4	1.53	1.75	1.98	2.13	2.22	2.48	2.77	2.91			

ASHRAE LBP

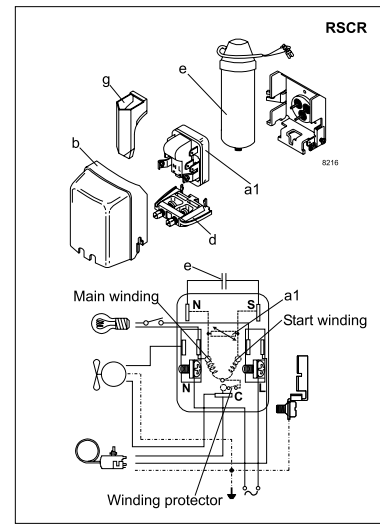
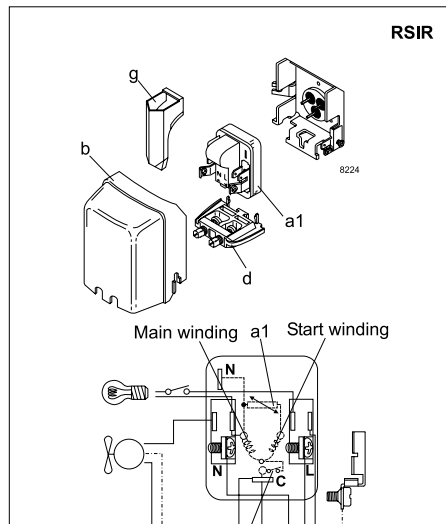
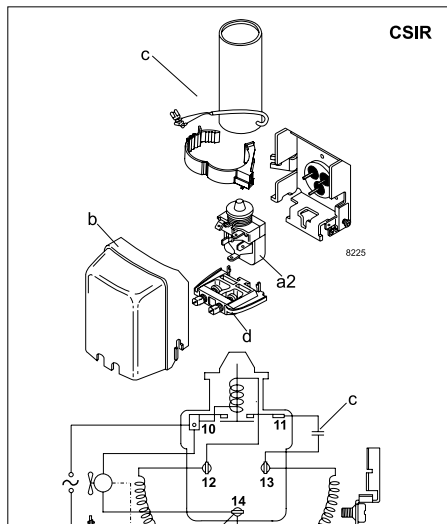
220V, 50Hz, CSIR/RSIR, fan cooling F₂

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			103	135	175	191	223	276	336	378	400	468	539	572			
Power cons. in W			97.5	111	124	129	138	151	164	171	175	185	193	196			
Current cons. in A			0.74	0.78	0.82	0.84	0.87	0.91	0.96	0.99	1.00	1.04	1.07	1.09			
COP in W/W			1.06	1.22	1.41	1.48	1.61	1.83	2.05	2.20	2.28	2.53	2.79	2.91			

ASHRAE MBP/HBP

220V, 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			92.3	121	157	170	199	247	299	337	356	417	480	508			
Power cons. in W			96.6	110	123	128	137	150	162	170	173	183	191	194			
Current cons. in A			0.74	0.78	0.82	0.84	0.87	0.91	0.96	0.99	1.00	1.04	1.07	1.09			
COP in W/W			0.96	1.10	1.27	1.33	1.46	1.65	1.85	1.98	2.06	2.28	2.51	2.62			



Accessories for	DLE4CN	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	a2	103N0050
Starting relay	6.3 mm spade connectors	a2	117U7000
Start. capacitor 60 µF	6.3 mm spade connectors	c	117U5014
Cover		b	103N0491
Run capacitor 5 µF (optional)	6.3 mm spade connectors	e	-
	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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss 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 in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.