

Datasheets

# DLE4CN Energy-optimized LBP/MBP 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 <sub>2</sub>	F <sub>2</sub>	-	-	-	-
38°C		F <sub>2</sub>	F <sub>2</sub>	-	-	-	-
43°C		F <sub>2</sub>	F <sub>2</sub>	-	-	-	-

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**

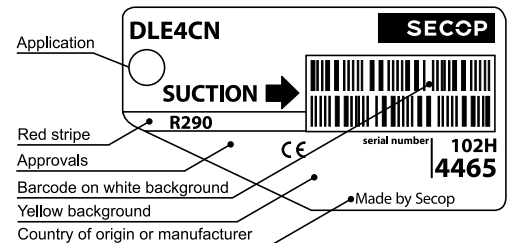
Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST   LST	A	5.4	5.0
Cut in Current, HST   LST	A	5.4	9.9
Resistance, main   start winding (25°C)	Ω	20.3	11.7

**Design**

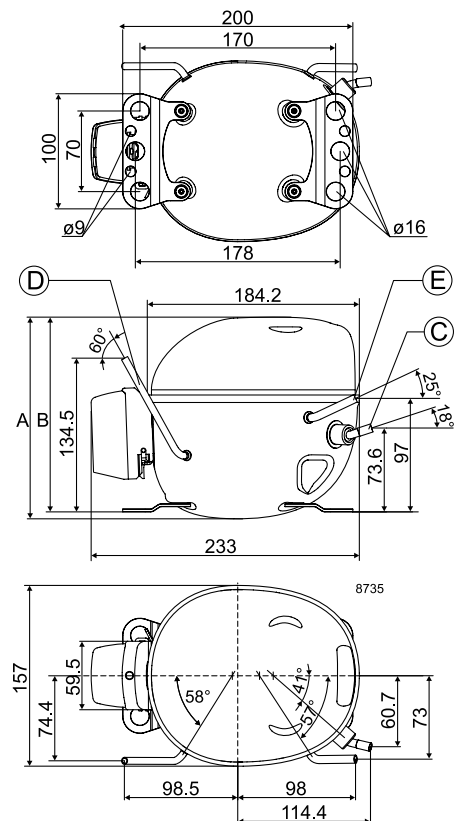
Displacement	cm <sup>3</sup>	4.00
Oil quantity (type)	cm <sup>3</sup>	230 (polyolester)
Maximum refrigerant charge	g	150
Free gas volume in compressor	cm <sup>3</sup>	1390
Weight without electrical equipment	kg	8.2

**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   60°
	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:			



- S = Static cooling normally sufficient
- O = Oil cooling
- F<sub>1</sub> = Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature)
- F<sub>2</sub> = 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 F<sub>2</sub>

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 F<sub>2</sub>

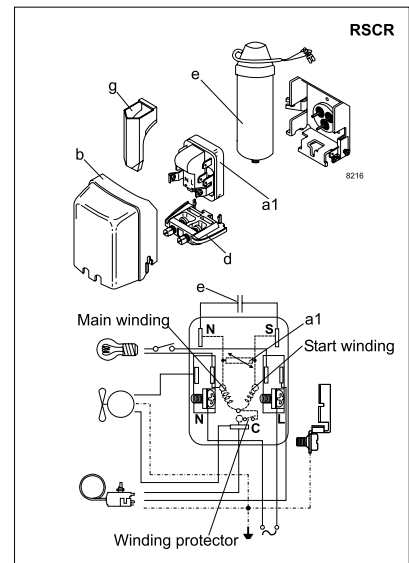
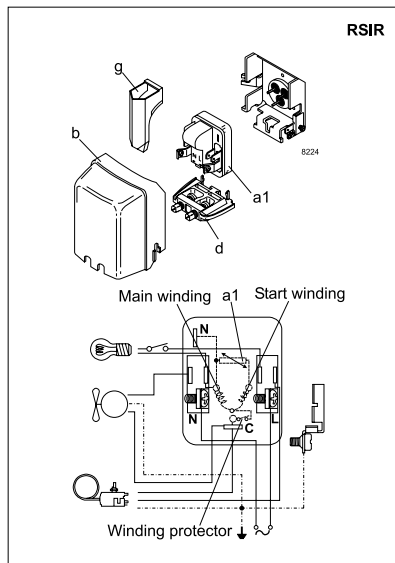
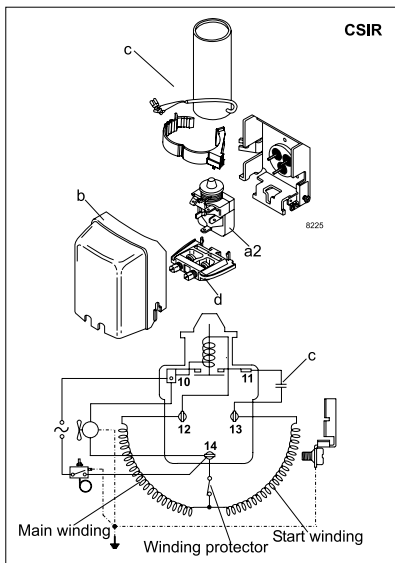
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			98.7	128	164	178	207	255	309	347	367	430	495	525			
Power cons. in W			99.7	111	123	127	135	146	156	163	166	173	179	180			
Current cons. in A			0.74	0.77	0.80	0.81	0.84	0.87	0.91	0.93	0.94	0.97	1.00	1.01			
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 F<sub>2</sub>

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 F<sub>2</sub>

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		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

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