

DLE4.8CNT

Energy-optimized Tropical Compressor

R290

220-240V 50/60Hz

General

Code number	102H4587
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

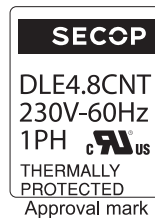
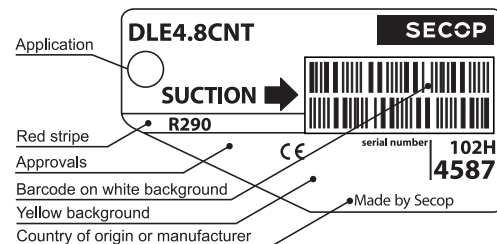
Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST LST	A	9.3	8.4
Cut in Current, HST LST	A	9.3	13.3
Resistance, main start winding (25°C)	Ω	10.8	11.4

Design

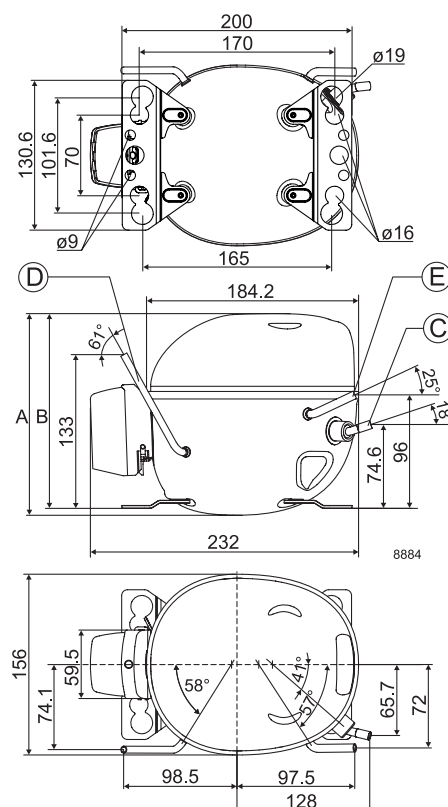
Displacement	cm ³	4.80
Oil quantity (type)	cm ³	220 (polyolester)
Maximum refrigerant charge	g	150
Free gas volume in compressor	cm ³	1325
Weight without electrical equipment	kg	8.2

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			134	170	214	230	266	328	401	456	487	585	698	753			
Power cons. in W			133	146	159	163	170	181	190	195	198	204	209	210			
Current cons. in A			1.25	1.28	1.32	1.33	1.34	1.37	1.39	1.41	1.41	1.43	1.45	1.46			
COP in W/W			1.01	1.16	1.35	1.42	1.56	1.81	2.11	2.34	2.46	2.87	3.35	3.59			

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

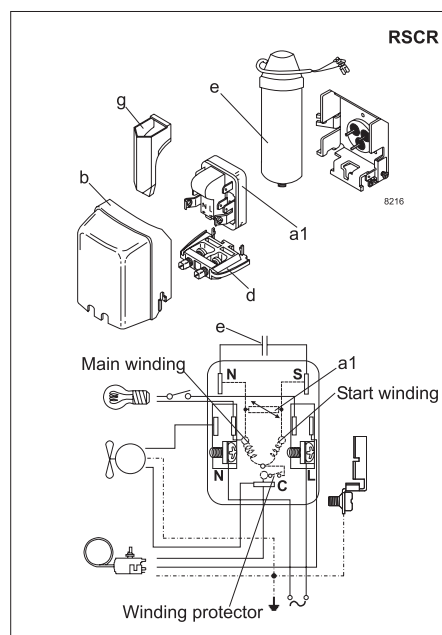
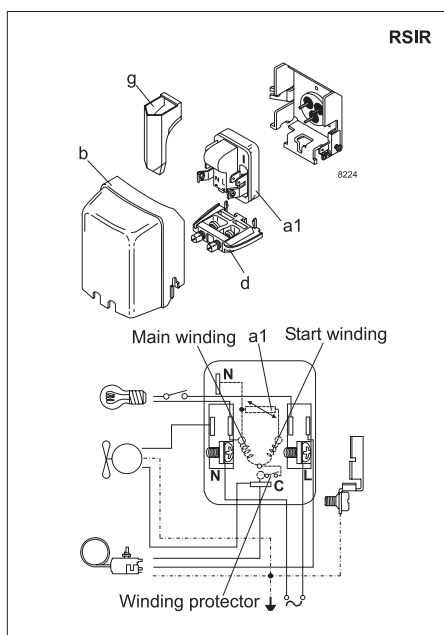
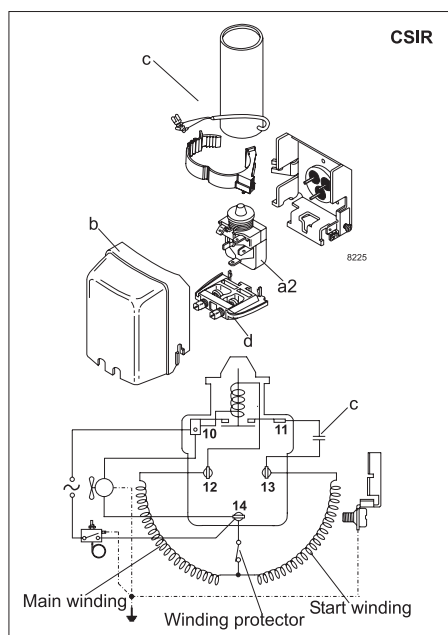
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			124	158	199	215	248	306	375	426	455	547	653	705			
Power cons. in W			135	149	163	168	176	188	199	206	209	218	226	228			
Current cons. in A			1.25	1.29	1.33	1.34	1.36	1.39	1.43	1.45	1.46	1.49	1.52	1.53			
COP in W/W			0.92	1.06	1.22	1.28	1.41	1.63	1.88	2.07	2.17	2.51	2.90	3.08			

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			130	169	215	232	269	333	409	466	497	600	719	776			
Power cons. in W			133	148	163	168	177	191	205	213	218	230	241	246			
Current cons. in A			1.26	1.31	1.35	1.37	1.40	1.44	1.49	1.52	1.54	1.59	1.64	1.67			
COP in W/W			0.98	1.14	1.32	1.38	1.52	1.74	2.00	2.18	2.29	2.61	2.98	3.16			

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			117	151	192	208	240	298	365	415	443	534	639	690			
Power cons. in W			132	147	161	166	175	189	203	211	215	227	238	243			
Current cons. in A			1.26	1.31	1.35	1.37	1.40	1.44	1.49	1.52	1.54	1.59	1.64	1.67			
COP in W/W			0.88	1.03	1.19	1.25	1.37	1.57	1.80	1.97	2.06	2.35	2.68	2.84			



Accessories for	DLE4.8CNT	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		117U7002
Start. capacitor 60 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

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			162	207	260	281	323	397	484	548	584	700	833	897			
Power cons. in W			146	161	176	181	191	205	218	226	230	238	243	245			
Current cons. in A			1.13	1.16	1.20	1.21	1.24	1.28	1.31	1.34	1.35	1.37	1.39	1.39			
COP in W/W			1.11	1.29	1.48	1.55	1.69	1.93	2.21	2.43	2.54	2.94	3.42	3.67			

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

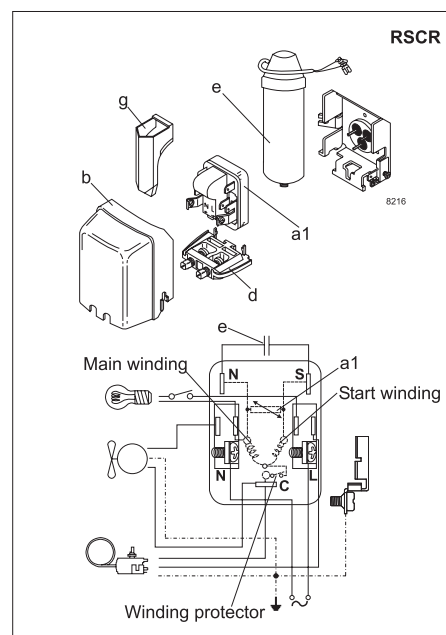
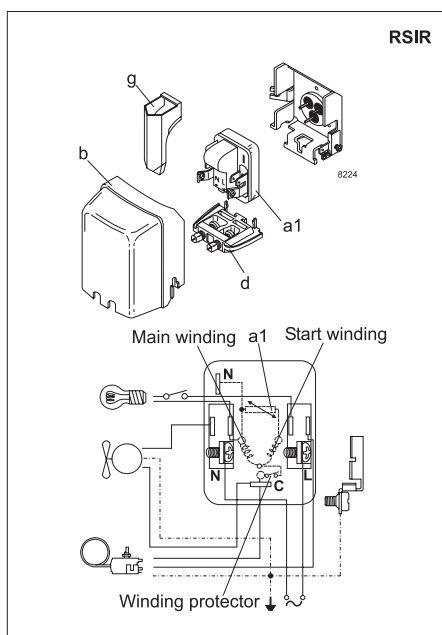
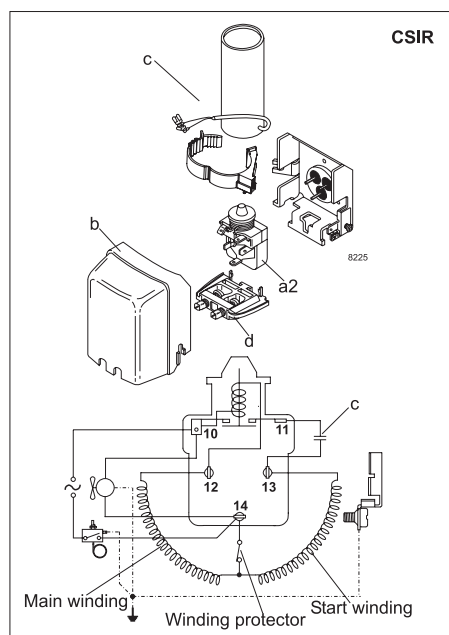
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			150	193	243	262	302	371	452	512	546	654	779	839			
Power cons. in W			149	164	181	186	197	214	229	238	243	254	263	266			
Current cons. in A			1.13	1.16	1.21	1.22	1.25	1.30	1.34	1.37	1.39	1.42	1.45	1.46			
COP in W/W			1.01	1.17	1.34	1.40	1.53	1.73	1.97	2.15	2.25	2.57	2.96	3.15			

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			157	206	262	283	327	403	493	560	597	718	857	925			
Power cons. in W			147	163	181	187	199	217	235	247	252	268	281	286			
Current cons. in A			1.14	1.18	1.23	1.25	1.28	1.34	1.40	1.44	1.46	1.52	1.57	1.59			
COP in W/W			1.07	1.26	1.45	1.51	1.64	1.86	2.09	2.27	2.36	2.68	3.05	3.23			

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			141	184	234	253	292	360	440	499	532	639	762	822			
Power cons. in W			146	162	179	185	197	215	233	245	250	265	278	283			
Current cons. in A			1.14	1.18	1.23	1.25	1.28	1.34	1.40	1.44	1.46	1.52	1.57	1.59			
COP in W/W			0.97	1.14	1.31	1.37	1.48	1.67	1.89	2.04	2.13	2.41	2.74	2.91			



Accessories for	DLE4.8CNT	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		117U7002
Start. capacitor 60 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

Nidec GA Compressors accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Nidec GA Compressors 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 subsequential changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Nidec Global Appliance Germany GmbH. All rights reserved. www.secop.com