

# Technical Data

# Compressor



## Model

Designation	<b>GTK70AT</b>	<b>200-240V/50Hz 1~</b>	Sales code:	<b>CDO00154</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a</b>
Oil viscosity	15cSt	Displacement	6,64cm <sup>3</sup> / 0,41cu.in
Oil quantity	156cm <sup>3</sup> / 5,3fl.oz	Compressors on pallet	100
Refr. charge - tech. limit			
Free gas volume comp.	1560cm <sup>3</sup> / 52,7fl.oz		
Weight	8,6kg / 19lbs		
Motor protection	external		
Winding resistance main	12,4Ω (at 25°C)		
Winding resistance aux	15,3Ω (at 25°C)		
Max. winding temp.	130°C / 266°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with GTK70AT

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	RSCR	RSIR
Power supply (nominal)	200-240V/50Hz	200-240V/50Hz
Number of phases	1	1
Voltage range	170-264V	170-264V
Approvals	VDE, EAC	VDE, EAC
Starting torque	LST	LST
Note	- / -	

## Applications with GTK70AT

	<b>Conf. 1</b>	<b>Conf. 2</b>
Refrigerant	R134a	R134a
Application	LBP	LBP
System cooling	static	static
Hot gas defrost	-/-	-/-
Long interval pull down	-/-	-/-

## Electrical data - Configurations with GTK70AT

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	PTC	PTC
Run capacitor	4μF	0μF
Start capacitor	0μF	0μF
LRA (locked rotor amps / 4s)	7,1A	7,1A
RLA (rated load amps / 1s)		
Cut in current	14,5A	14,5A
IP class	21	21

# Technical Data

# Compressor



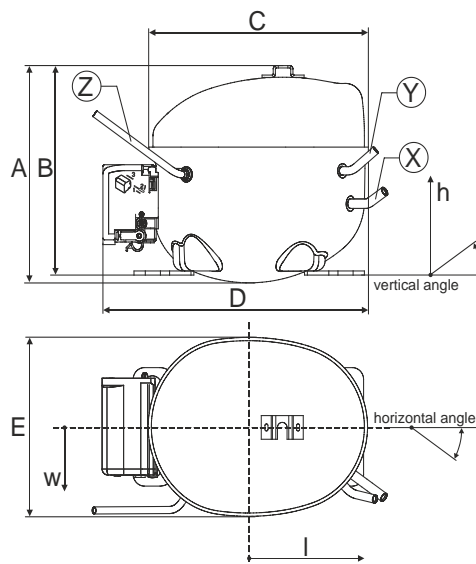
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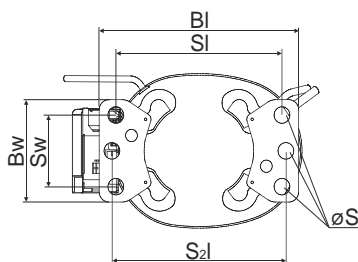
## Compressor dimensions

<b>Housing</b>	A Height	174mm / 6,85in
	B Height	167mm / 6,57in
	C Length shell	191mm / 7,52in
	D Length w. cover	215mm / 8,46in
	E Width	151mm / 5,94in

Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 6,1-6,2	øi 5,1-5,2	øo 5,92-6,08
(i:inside, o:outside)	[in]	øi 0,24-0,24	øi 0,2-0,2	øo 0,23-0,24
Material		copper	copper	copper
Horizontal angle	±2°	45°	13°	0
Vertical angle	±2°	30°	40°	145°
Position l/h/w	[mm]	120/72/62	112/106/62	-140/136/70
	[in]	4,7/2,8/2,4	4,4/4,2/2,4	-5,5/5,4/2,8
Straight tube l.	[mm]	14	14	14
	[in]	0,5	0,5	0,5

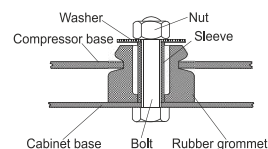


## Compressor fixation

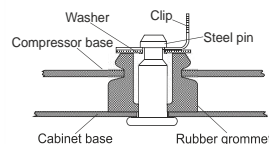


Baseplate	[mm]	[inch]
BI	204	8.03
BW	100	3.94
Small holes		
SI	170	6.7
SW	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

### Bolt joint



### Snap-on



## Mounting accessories

'4ZN' with rubber grommet

'4ZN' with rubber grommet and sleeve for M6

Bolt joint kit

'4ZN' with Snap on kit

order code

772N

768N

4ZN + 118-1917 (18)

776N

## Application notes

Various options of housing are possible (dip-tray fixture) - please contact Nidec-Sales.

Various options of connectors are possible - please contact Nidec-Sales.

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# Compressor



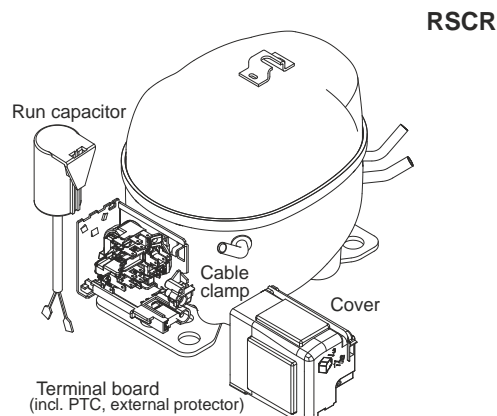
## Model

Designation	<b>GTK70AT</b>	<b>200-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>CDO00154</b>
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## Configuration

Motorconfiguration	RSCR
Power supply (nominal)	200-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	170-264V
Starting torque	LST
Approvals	VDE
	EAC

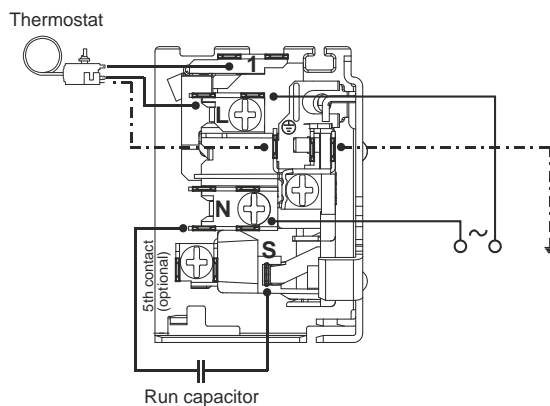
## Electrical accessories / wiring diagram



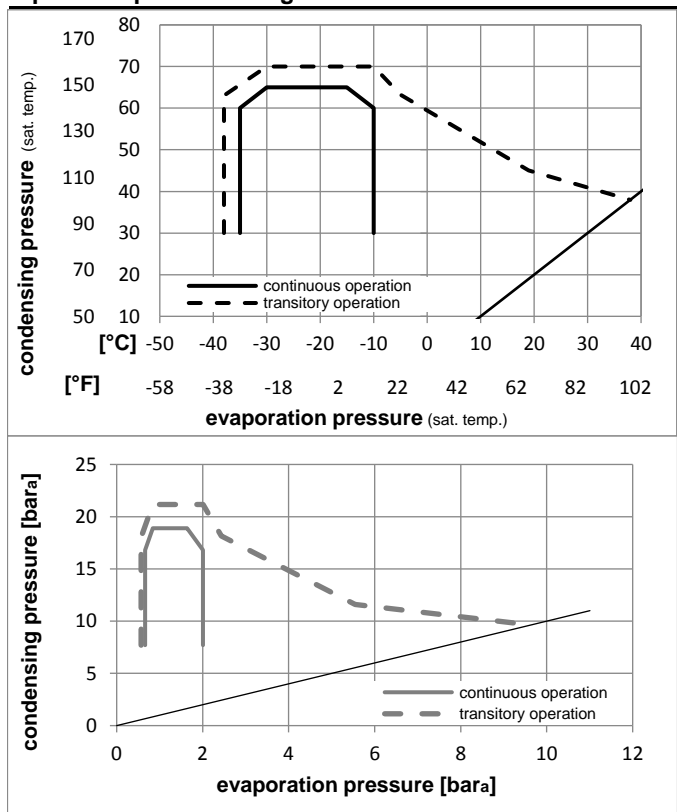
## Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	static	n/a	n/a



## Operation pressure range



## Components

terminal board (PTC,4.8mm,K100)	ZC F9
run capacitor (4μF, 4.8/6,3mm)	cap. 4μF
motor protector BDG AE 11 BJ x	AE11BJX
cover + clamp + screws (Nr. 4ZN)	16168000

## Alternative components:

terminal board (PTC,6.3mm,K100)	DC F9
run capacitor (4μF, 4.8/6,3mm)	cap. 4μF
motor protector BDG AE 11 BJ x	AE11BJX
cover + clamp + screws (Nr. 4ZN)	16168000

# Technical Data

# Compressor



**SECOP**

## Model

Designation **GTK70AT 200-240V/50Hz** Conf. 1 Sales code: **CDO00154**

## Optimization + standard conditions

200-240V/50Hz 1~, RSCR, static, VDE, EAC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.		Cooling capacity			COP	EER	Power consumption		Ref. mass flow	ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m								
[°C]	-23,3	54,4	32,2	32,2	204,5	698	176,0	1,60	5,46	1,37	128,0	0,60	3,97	[kg/h]							
[°F]	-10	130	90	90																	
	-25	55	32	55	150,8	515	129,8	1,23	4,19	1,06	122,8	0,57	3,61							cecomaf LBP	
	-13	131	89,6	131																	
	-35	40	20	40	103,8	354	89,3	1,14	3,89	0,98	91,2	0,44	2,28							EN12900 LBP	
	-31	104	68	104																	
	-23,3	48,9	4,44	48,9	167,6	572	144,2	1,35	4,60	1,16	124,5	0,60	4,43							ARI540 LBP	
	-10	120	40	120																	
	-23,3	40,6	32,2	32,2	221,8	757	190,9	1,89	6,44	1,62	117,6	0,57	4,31							AHAM LBP	
	-10	105	90	90																	
	-35	45	32	45	97,5	333	83,9	1,05	3,58	0,90	93,0	0,46	2,10							opt	
	-31	113	89,6	113																	

## Performance tables

200-240V/50Hz 1~, RSCR, static, VDE, EAC

	pe	Cooling capacity			COP			EER			P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
[°C / °F]	-35	-31	97,5	333	83,9	1,05	3,58	0,90	93,0	0,46	2,10		
cond. pressure	-30	-22	134,3	459	115,6	1,28	4,39	1,11	104,5	0,51	2,90		
pc= 45/113	-25	-13	177,9	607	153,1	1,52	5,19	1,31	117,0	0,57	3,85		
return gas temp.	-23,3	-10	194,5	664	167,4	1,60	5,47	1,38	121,4	0,59	4,22		
RGT= 32/90	-20	-4	229,6	784	197,6	1,76	6,02	1,52	130,2	0,64	4,99		
liquid temp	-15	5	290,9	993	250,3	2,02	6,90	1,74	143,9	0,71	6,34		
Tliq= 45/113	-10	14	363,1	1240	312,5	2,30	7,85	1,98	158,0	0,79	7,95		
[°C / °F]	-35	-31	78,2	267	67,3	0,86	2,92	0,74	91,3	0,43	1,86		
cond. pressure	-30	-22	111,8	382	96,2	1,05	3,58	0,90	106,7	0,50	2,67		
pc= 55/131	-25	-13	150,8	515	129,8	1,23	4,19	1,06	122,8	0,57	3,61		
return gas temp	-23,3	-10	165,6	565	142,5	1,29	4,40	1,11	128,4	0,60	3,96		
RGT= 32/90	-20	-4	196,7	672	169,3	1,41	4,82	1,21	139,4	0,66	4,72		
liquid temp	-15	5	250,9	857	215,9	1,61	5,48	1,38	156,2	0,74	6,04		
Tliq= 55/131	-10	14	314,6	1075	270,8	1,82	6,20	1,56	173,2	0,83	7,61		

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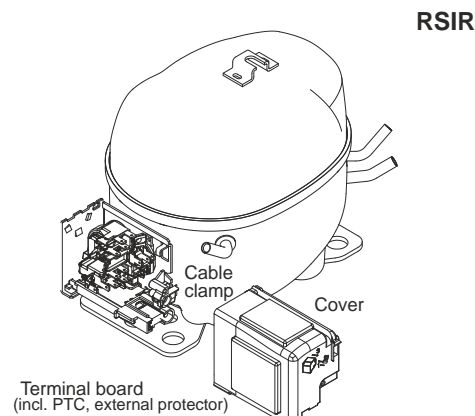
## Model

Designation	<b>GTK70AT</b>	<b>200-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>CDO00154</b>
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## Configuration

Motorconfiguration	RSIR
Power supply (nominal)	200-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	170-264V
Starting torque	LST
Approvals	VDE
	EAC

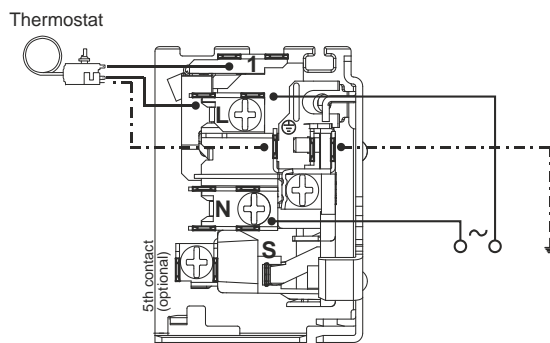
## Electrical accessories / wiring diagram



## Ambient temperatures / system cooling

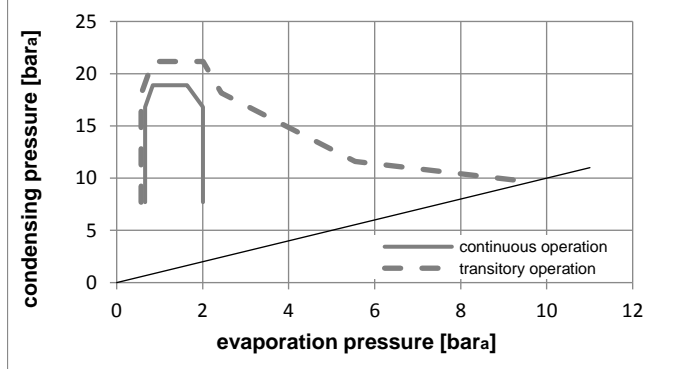
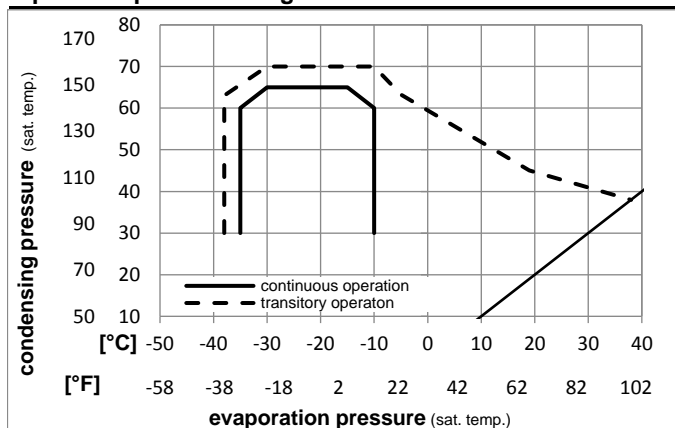
Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	static	n/a	n/a



8858-6

## Operation pressure range



## Components

terminal board (PTC,4.8mm,K100)	ZC F9
motor protector BDG AE 11 BJ x	AE11BJX
cover + clamp + screws (Nr. 4ZN)	16168000

## Alternative components:

terminal board (PTC,6.3mm,K100)	DC F9
motor protector BDG AE 11 BJ x	AE11BJX
cover + clamp + screws (Nr. 4ZN)	16168000

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## Optimization + standard conditions

200-240V/50Hz 1~, RSIR, static, VDE, EAC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.		Cooling capacity			COP	EER	Power consumption			Ref. mass flow	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	[W]	[A]	[kg/h]						
[°C]	-23,3	54,4	32,2	32,2	204,6	699	176,1	1,52	5,18	1,31	134,7	0,63	3,97	ASHRAE LBP								
[°F]	-10	130	90	90																		
[°C]	-25	55	32	55	150,8	515	129,8	1,17	3,99	1,00	129,2	0,60	3,61	cecomaf LBP								
[°F]	-13	131	89,6	131																		
[°C]	-35	40	20	40	103,8	355	89,4	1,09	3,71	0,94	95,5	0,45	2,28	EN12900 LBP								
[°F]	-31	104	68	104																		
[°C]	-23,3	48,9	4,44	48,9	167,6	573	144,3	1,28	4,37	1,10	131,0	0,62	4,43	ARI540 LBP								
[°F]	-10	120	40	120																		
[°C]	-23,3	40,6	32,2	32,2	221,8	758	190,9	1,79	6,12	1,54	123,9	0,57	4,31	AHAM LBP								
[°F]	-10	105	90	90																		
[°C]	-35	45	32	45	97,5	333	83,9	1,00	3,42	0,86	97,4	0,45	2,10	opt								
[°F]	-31	113	89,6	113																		

## Performance tables

200-240V/50Hz 1~, RSIR, static, VDE, EAC

	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	97,5	333	83,9	1,00	3,42	0,86	97,4	0,45	2,10
cond. pressure	-30	-22	134,3	459	115,6	1,22	4,18	1,05	109,8	0,50	2,90
pc= 45/113	-25	-13	177,9	608	153,1	1,44	4,93	1,24	123,1	0,57	3,85
return gas temp.	-23,3	-10	194,5	664	167,4	1,52	5,20	1,31	127,8	0,59	4,22
RGT= 32/90	-20	-4	229,6	784	197,6	1,67	5,72	1,44	137,1	0,65	4,99
liquid temp	-15	5	290,9	993	250,3	1,92	6,55	1,65	151,7	0,73	6,34
Tliq= 45/113	-10	14	363,1	1240	312,5	2,18	7,45	1,88	166,5	0,82	7,95
[°C / °F]	-35	-31	78,2	267	67,3	0,82	2,80	0,70	95,5	0,45	1,86
cond. pressure	-30	-22	111,8	382	96,2	1,00	3,41	0,86	112,0	0,52	2,67
pc= 55/131	-25	-13	150,8	515	129,8	1,17	3,99	1,00	129,2	0,60	3,61
return gas temp	-23,3	-10	165,6	566	142,5	1,23	4,18	1,05	135,1	0,64	3,96
RGT= 32/90	-20	-4	196,7	672	169,3	1,34	4,58	1,15	146,8	0,70	4,72
liquid temp	-15	5	250,8	857	215,9	1,52	5,20	1,31	164,7	0,80	6,04
Tliq= 55/131	-10	14	314,6	1074	270,7	1,72	5,88	1,48	182,6	0,90	7,61