

## Model

Designation	<b>HAD60AA</b>	<b>220-240V/50Hz ~</b>	Sales code:	<b>CDO00209</b>
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## Compressor design

Oil type	Mineral	Refrigerant(s)	<b>R600a</b>
Oil viscosity	2,3cSt	Displacement	6cm <sup>3</sup> / 0,37cu.in
Oil quantity	77cm <sup>3</sup> / 2,6fl.oz	Compressors on pallet	168
Refr. charge - tech. limit	150g / 5,3oz		
Free gas volume comp.	837cm <sup>3</sup> / 28,3fl.oz		
Weight	3,9kg / 8,6lbs		
Motor protection	external		
Winding resistance main	40,7Ω (at 25°C)		
Winding resistance aux	55,1Ω (at 25°C)		
Max. winding temp.	120°C / 248°F		
Max. discharge temp.	120°C / 248°F		



## General - Configurations with HAD60AA

	<b>Conf. 1</b>
Motorconfiguration	RSCR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	187-264V
Approvals	VDE
Starting torque	LST
Note	Electrical equipment will be pre-assembled to compressor.

## Applications with HAD60AA

	<b>Conf. 1</b>
Refrigerant	R600a
Application	LBP
System cooling	static
Hot gas defrost	-/-
Long interval pull down	-/-

## Electrical data - Configurations with HAD60AA

	<b>Conf. 1</b>
Starting device type	PTC
Run capacitor	2μF
Start capacitor	-/-
LRA (locked rotor amps / 4s)	2,1A
RLA (rated load amps / 1s)	
Cut in current	3,86A
IP class	21

## Model

Designation

**HAD60AA**

220-240V/50Hz ~

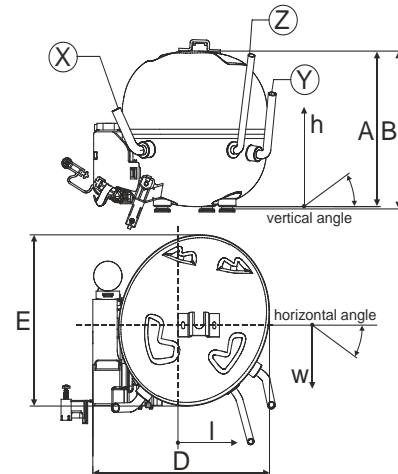
Sales code:

**CDO00209**

## Compressor dimensions

Housing	A Height	133mm / 5,24in
	B Height	134,5mm / 5,3in
	C Length shell	135mm / 5,31in
	D Length w. cover	159mm / 6,26in
	E Width	147mm / 5,79in

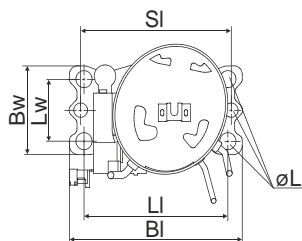
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 6,1-6,3	øi 4,9-5,1	øo 5,92-6,08
	(i:inside, o:outside) [in]	øi 0,24-0,25	øi 0,19-0,2	øo 0,23-0,24
Material		copper	steel/CU	copper
Horizontal angle	±2°	0°	80°	74°
Vertical angle	±2°	79°	79°	72°
Position l/h/w	[mm]	-54/83/74	87/96/72	69/130/103
	[in]	-2,1/3,3/2,9	3,4/3,8/2,8	2,7/5,1/4,1
Straight tube l.	[mm]	14	14	14
	[in]	0,5	0,5	0,5



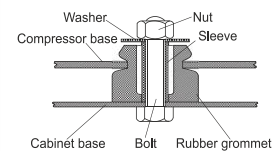
## Compressor fixation

### Adapter plate

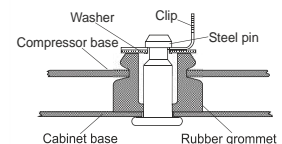
### Bolt joint



Baseplate	[mm]	[inch]
BI	204	8.03
Bw	100	3.94
Large holes	[mm]	[inch]
LI	170	6.7
Lw	70	2.76
SI	178	7
øL	ø 16	ø 0.63



### Snap-on



For standard mounting	one comp.	multi pack
Adapter plate	157008_	
Bolt joint   M6   ø16mm	118-1917	118-1918
Bolt joint   ø1/4"   ø16mm	118-1946	
Snap-on   ø7,3   ø16mm	118-1947	118-1919

## Application notes

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

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

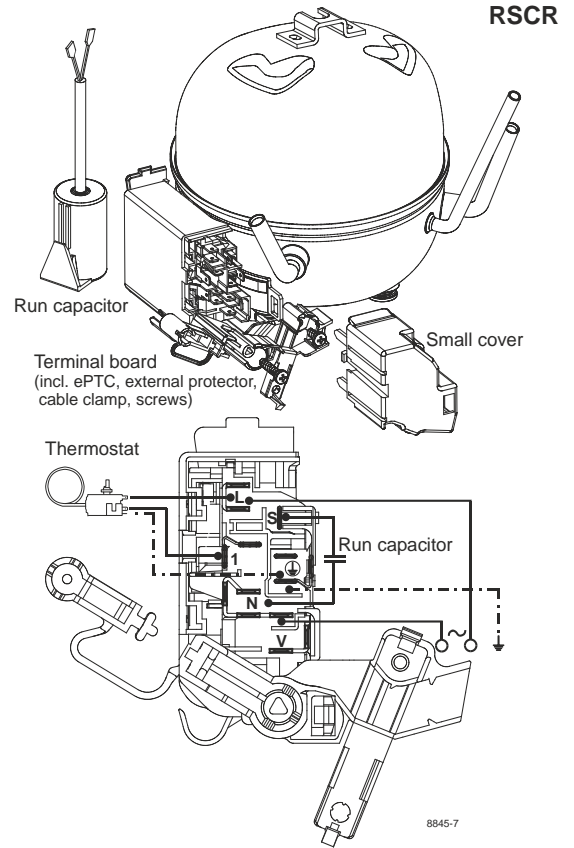
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Designation **HAD60AA** **220-240V/50Hz** Conf. 1 Sales code: **CDO00209**

## Configuration

Motorconfiguration RSCR  
 Power supply (nominal) 220-240V/50Hz 1~  
 Refrigerant R600a  
 Application LBP  
 Voltage range 187-264V  
 Starting torque LST  
 Approvals VDE

## Electrical accessories / wiring diagram

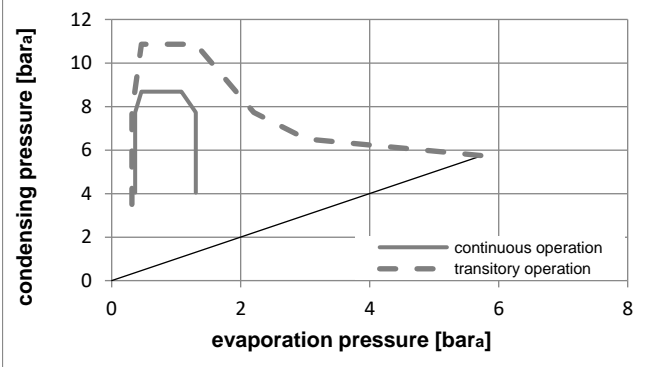
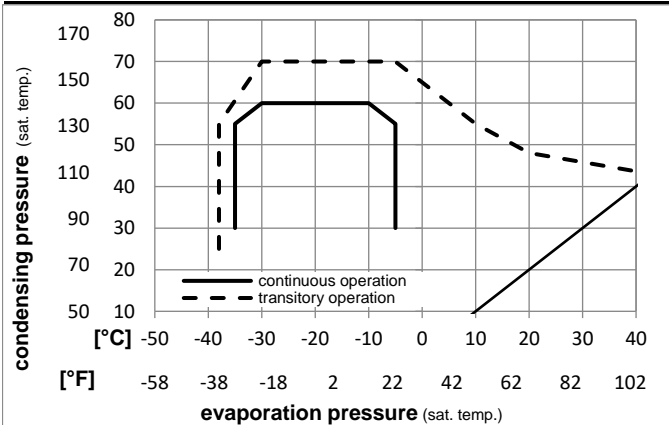


## Ambient temperatures / system cooling

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

System cooling (n/a: outside limits)			
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 (will be pre-assembled)

- . terminal board (ePTC,4.8mm) BX E4
- . motor protector BDG AE 23 FLS 17 x E4
- . run capacitor (2µF, 4.8mm) cap. 2µF
- . cover terminal board 160943\_

### Model

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### Optimization + standard conditions

220V/50Hz, RSCR, static, VDE

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			Ref. mass flow
	pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23,3	45	32,2	32,2	120,0	410	103,3	2,08	7,10	1,79	57,7	0,26	1,29	opt
	-9,94	113	90	90										
	-23,3	54,4	32,2	32,2	114,9	393	98,9	1,86	6,34	1,60	61,9	0,28	1,23	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	86,7	296	74,6	1,46	4,97	1,25	59,5	0,27	1,13	cecomaf LBP
	-13	131	89,6	131										
	-23,3	48,9	4,44	48,9	92,7	317	79,8	1,56	5,32	1,34	59,5	0,27	1,35	ARI540 LBP
	-10	120	40	120										
	-23,3	40,6	32,2	32,2	122,3	418	105,2	2,21	7,54	1,90	55,4	0,25	1,31	AHAM LBP
	-10	105	90	90										
	-35	45	32	45	54,0	184	46,5	1,44	4,91	1,24	37,6	0,19	0,64	opt
	-31	113	89,6	113										

### Performance tables

220V/50Hz, RSCR, static, VDE

	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	54,0	184	46,5	1,44	4,91	1,24	37,6	0,19	0,64
cond. pressure	-30	-22	75,8	259	65,2	1,58	5,38	1,36	48,1	0,22	0,90
pc= 45/113	-25	-13	99,4	339	85,6	1,79	6,11	1,54	55,6	0,25	1,18
return gas temp.	-23,3	-10	108,2	369	93,1	1,88	6,40	1,61	57,7	0,26	1,29
RGT= 32/90	-20	-4	126,7	433	109,0	2,06	7,02	1,77	61,6	0,28	1,51
liquid temp	-15	5	159,3	544	137,1	2,34	8,00	2,02	68,0	0,31	1,90
Tliq= 45/113	-5	23	248,3	848	213,7	2,80	9,58	2,41	88,5	0,39	2,98
[°C / °F]	-35	-31	45,0	154	38,7	1,16	3,97	1,00	38,7	0,19	0,58
cond. pressure	-30	-22	65,1	222	56,1	1,29	4,40	1,11	50,5	0,23	0,85
pc= 55/131	-25	-13	86,7	296	74,6	1,46	4,97	1,25	59,5	0,27	1,13
return gas temp	-23,3	-10	94,6	323	81,4	1,52	5,19	1,31	62,2	0,28	1,23
RGT= 32/90	-20	-4	111,4	380	95,8	1,65	5,65	1,42	67,3	0,31	1,46
liquid temp	-15	5	141,1	482	121,4	1,86	6,37	1,60	75,7	0,35	1,85
Tliq= 55/131	-5	23	222,7	761	191,6	2,21	7,53	1,90	101,0	0,46	2,93