



Model: NEK1116Z
Code: 268EA47

embraco POWER IN.
CHANGE ON

Type:	On-off
Voltage [V] / Frequency [Hz] / Phases	220-240 V 50 Hz 1 ~
Refrigerant:	R-134a
Application:	LBP

Motor type:	RSIR-RSCR
Starting torque:	LST
HP:	
Displacement:	7.37 cm ³

OPERATING CONDITION : ARI LBP

Evaporation Temp.	-23.3 °C	Return Temp.	4.4 °C	Superheating	27.7 K
Condensing Temp.	48.9 °C	Liquid Temp.	48.9 °C	Subcooling	0.0 K

Cooling capacity	Power consumption	Mass flow rate	Efficiency
164.94 W	130.68 W	4.33 kg/h	1.26 W/W

APPLICATION

Evaporating temperature range:	-35 to -10 °C	Cooling type:	Static
Permanent operating temperature (peak) :	60 (70) °C	Air Flow	--
Expansion device:	Capillary tube	Maximum motor temperature:	130 °C

ELECTRICAL DATA

Start winding resistance at 25°C (77°F):	17.6 Ω +/- 8%	Run winding resistance at 25°C (77°F):	13.2 Ω +/- 8%
FLA - full load amperage L/MBP [A] 50 Hz / 60 Hz:	0.82 / -	LRA (A) 50 Hz / 60 Hz:	5.3 / -
		FLA - full load amperage HBP [A] 50 Hz / 60 Hz:	- / -

MECHANICAL DATA

Bore:	24.28 mm	Stroke:	7.96 mm
		Displacement:	7.37 cm ³

OTHER INFORMATION

Weight:	10.8 kg	Oil charge:	350 ml
Lubricant type:	Polyolester ISO22	Nitrogen charge:	Yes

EXTERNAL SETTINGS

	Shape	Material	Diameter [mm]
-			
Suction connector	Slanted 42°	Copper	6.10
Discharge connector	Slanted parallel to Base Plate	Copper	4.94
Process connector	Slanted 42°	Copper	6.10
Base plate:	European Standard	Tray holder:	No

PERFORMANCES AT STANDARD CHECK-POINTS

Checkpoint	Cooling capacity	Power consumption	Gas flow rate	Cooling Efficiency	Heating capacity +/-	Heating Efficiency
	+/-5% W	+/-5% W	+/-5% kg/h	+/- 7% W/W	5% * W	+/- 7% W/W
ARI LBP	164.94	130.68	4.33	1.26	234.13	1.79
ASHRAE LBP 32	193.55	133.37	3.76	1.45	264.39	1.98
CECOMAF LBP	141.36	125.69	3.37	1.12	207.58	1.65
EN12900 LBP**	99.54	85.34	2.05	1.17	142.15	1.67
EN12900 MBP**	367.53	184.35	8.03	1.99	466.39	2.53

* Calculations performed considering isentropic compression and a housing loss of 10%. This is an estimated heat amount discarded in the discharge pipe and the condenser combined.

CONDENSING TEMP. 35 °C**(SUBCOOLING : 0 K, RETURN TEMP.: 32 °C)**

Evaporating temperature °C	Cooling capacity	Power consumption	Gas flow rate	Cooling Efficiency	Heating capacity +/-	Heating Efficiency
	+/-5%	+/-5%	+/-5%	+/- 7%	5% *	+/- 7%
	W	W	kg/h	W/W	W	W/W
-35.00	109.18	84.14	2.16	1.30	151.60	1.80
-30.00	149.00	98.95	2.95	1.51	200.72	2.03
-25.00	198.16	114.85	3.93	1.73	259.32	2.26
-20.00	258.33	131.36	5.14	1.97	328.77	2.50
-15.00	331.14	147.76	6.61	2.24	410.31	2.78
-10.00	418.29	163.22	8.38	2.56	505.15	3.09

CONDENSING TEMP. 45 °C**(SUBCOOLING : 0 K, RETURN TEMP.: 32 °C)**

Evaporating temperature °C	Cooling capacity	Power consumption	Gas flow rate	Cooling Efficiency	Heating capacity +/-	Heating Efficiency
	+/-5%	+/-5%	+/-5%	+/- 7%	5% *	+/- 7%
	W	W	kg/h	W/W	W	W/W
-35.00	89.47	85.71	1.93	1.04	131.60	1.54
-30.00	125.82	103.13	2.71	1.22	179.26	1.74
-25.00	169.90	122.05	3.67	1.39	234.76	1.92
-20.00	223.75	142.27	4.85	1.57	300.19	2.11
-15.00	289.07	163.28	6.29	1.77	376.99	2.31
-10.00	367.53	184.35	8.03	1.99	466.39	2.53

CONDENSING TEMP. 55 °C**(SUBCOOLING : 0 K, RETURN TEMP.: 32 °C)**

Evaporating temperature °C	Cooling capacity	Power consumption	Gas flow rate	Cooling Efficiency	Heating capacity +/-	Heating Efficiency
	+/-5%	+/-5%	+/-5%	+/- 7%	5% *	+/- 7%
	W	W	kg/h	W/W	W	W/W
-35.00	66.77	82.80	1.59	0.81	104.75	1.27
-30.00	101.56	103.67	2.42	0.98	154.06	1.49
-25.00	141.36	125.69	3.37	1.12	207.58	1.65
-20.00	189.08	149.31	4.52	1.27	269.08	1.80
-15.00	246.79	174.43	5.92	1.41	340.76	1.95
-10.00	316.21	200.55	7.62	1.58	424.08	2.11

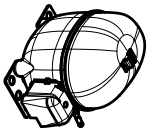
ELECTRICAL ACCESSORIES

Kit:	1
Starter device:	PTC
Engineering code:	V230
Run capacitor:	4
Starting capacitor:	--

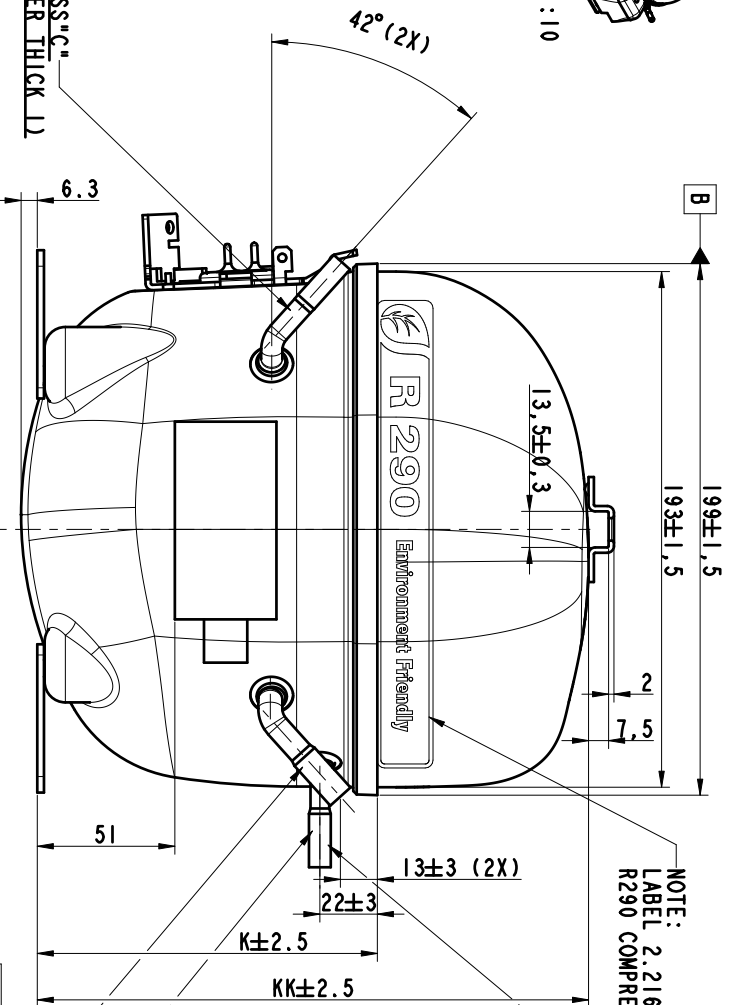
Thermal protector: T0503/07**Institutes approved for this electric kit:**

If purchased without electricals consult Embraco to verify the supplier of electricals approved for this compressor

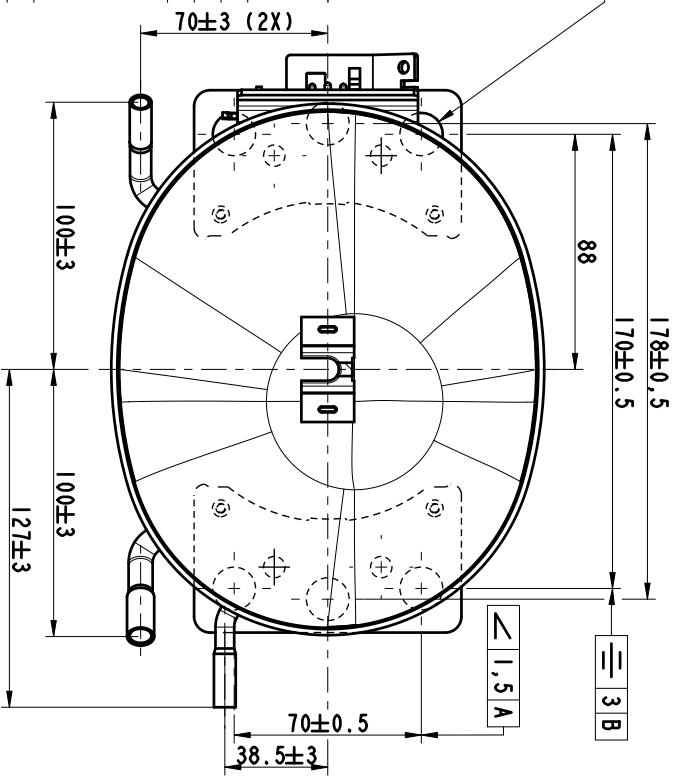
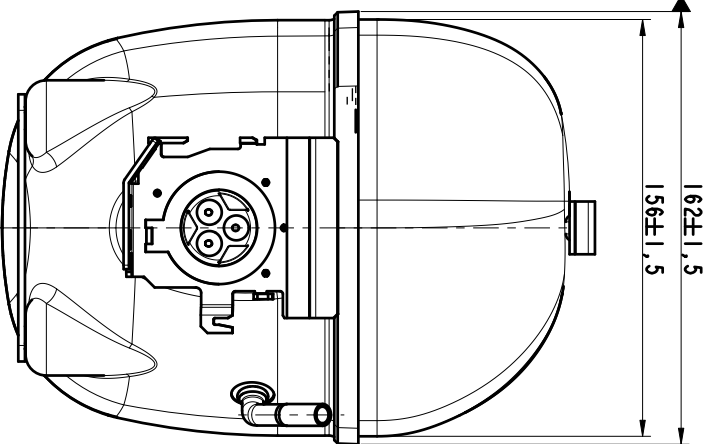
MECHANICAL ACCESSORIES**Rubber damper:** Yes**Metal bushing:** Optional



SCALE 1:10



NOTE:
LABEL 2.216.477 USED ONLY FOR
R290 COMPRESSORS (NEKxxxxU)



ECM	REVISION	LO	BY	APP	DATE
36537	2	DELETED SLOWLY NOTE	ES	MG	01.06.2013
31062	3	FROM DIM 1000045 DIMEN: SHELL 859.50 (NEK21500K), NEK21340K REMOVED NEK21300K ADDED 200.54 (NEK21402K), 859.54 (NEK21500K)	TAB	MG	14.10.2013
27071	4	ADDED 862.54, 862.54 (NEK21340K);	TAB	MP	17.12.2013
44284	5	ADDED DIM MODELS NEK21004K, NEK21005, NEK21006, NEK21009, NEK1072;	TAB	MG	14.11.2016
44763	6	CHANGED DIMENSION IN FROM 201 TO 200 mm AND FROM 247 TO 246 mm;	TAB	MG	05.01.2017

MATERIAL	KK	K	A	B	C	SHELL TYPE	MODELS
206	127	1-D. 6-1-6-2 X 20 DEEP	1-D. 8-1-8-2 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	269.58 863.58 959.58	NEK6214Z NEK6213U NEU2168U NEU2168GJ NEU21786K	
206	127	1-D. 4-86-5-03 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	269.54 959.54	NEK2140Z NEK21506K	
200	127	1-D. 6-1-6-2 X 20 DEEP	1-D. 8-1-8-2 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	862.58 958.58	NEK1121U NEK6210U NEK6187Y NEK21306K NEU21406K	
200	127	1-D. 4-86-5-03 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	268.47 862.34 862.54 958.54	NEK1116Z NEK1118Z NEK2134U NEK21346K	
188	115	1-D. 6-1-6-2 X 20 DEEP	1-D. 8-1-8-2 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	267.58 861.58	NEK6170Z NEK6160Y NEK6170Y NEK6181U NEU6187Z	
188	115	1-D. 4-86-5-03 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	1-D. 6-1-6-2 X 20 DEEP	957.54 861.47	NEK2121GK NEK21256K NEK6144Y	

DRAWN : MILOS GALAD 04.04.2013

APP. : ROBER REICH

ECM : 28632

NAME
EXTERNAL VIEW "NEK"
VISTA ESTERNA "NEK"
EXTERNY POHLAD "NEK"

SCALE : 1:2

REPLACE

No. 1.960.959

embraco

THIS MATERIAL IS SUPPLIED AS IS AND IS NOT WARRANTED TO BE FIT FOR ANY PARTICULAR PURPOSE AND ANY USE OTHER THAN THAT SPECIFIED IN THE TECHNICAL DRAWING.