



Model: NEK2150U  
Code: 863AA51

**embraco** POWER IN.  
CHANGE ON

Type:	On-off
Voltage [V] / Frequency [Hz] / Phases	220-240 V 50 Hz 1 ~
Refrigerant:	R-290
Application:	LBP

Motor type:	CSIR
Starting torque:	HST
HP:	1/2+
Displacement:	13.54 cm <sup>3</sup>

### OPERATING CONDITION : ASHRAE LBP 32

Evaporation Temp.	-23.3 °C	Return Temp.	32.2 °C	Superheating	55.5 K
Condensing Temp.	54.4 °C	Liquid Temp.	32.2 °C	Subcooling	22.2 K

<b>Cooling capacity</b>	<b>Power consumption</b>	<b>Mass flow rate</b>	<b>Efficiency</b>
581.69 W	440.32 W	5.91 kg/h	1.32 W/W

### APPLICATION

Evaporating temperature range:	-40 to -10 °C	Cooling type:	Fan Cooling
Permanent operating temperature (peak) :	55 (60) °C	Air Flow	--
Expansion device:	Capillary tube or Expansion valve	Maximum motor temperature:	130 °C

### SEE OUR CAPILLARY TUBE SIZING SUGGESTION FOR PRELIMINARY TESTS

Number of capillaries	Length [m]	Internal diameter [mm]	Application
1.00	3.00	0.91	LBP

### ELECTRICAL DATA

Start winding resistance at 25°C (77°F):	30.4 Ω +/- 8%	Run winding resistance at 25°C (77°F):	4.2 Ω +/- 8%
FLA - full load amperage L/MBP [A] 50 Hz / 60 Hz:	- / -	LRA (A) 50 Hz / 60 Hz:	- / -
		FLA - full load amperage HBP [A] 50 Hz / 60 Hz:	- / -

### MECHANICAL DATA

Bore:	29.36 mm	Stroke:	10 mm
		Displacement:	13.54 cm <sup>3</sup>

### OTHER INFORMATION

Weight:	11.6 kg	Oil charge:	350 ml
Lubricant type:	Polyolester ISO22	Nitrogen charge:	No

### EXTERNAL SETTINGS

-	Shape	Material	Diameter [mm]
Suction connector	Slanted 42°	Copper	8.10
Discharge connector	Straight	Copper	6.10
Process connector	Slanted 42°	Copper	6.10

Base plate:	European Standard	Tray holder:	No
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## PERFORMANCES AT STANDARD CHECK-POINTS

Checkpoint	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
ARI LBP	489.44	471.16	6.80	1.04	697.51	1.48
ASHRAE LBP 32	581.69	440.32	5.91	1.32	795.65	1.81
CECOMAF LBP	431.83	422.51	5.41	1.02	635.89	1.51
EN12900 LBP**	335.94	316.14	3.62	1.06	479.67	1.52
EN12900 MBP**	991.79	547.56	11.39	1.81	1,261.44	2.30

\* 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 : 22.2 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
-40.00	325.55	275.76	2.86	1.18	445.33	1.61
-35.00	426.04	311.40	3.75	1.37	566.96	1.82
-30.00	550.27	349.45	4.86	1.57	713.20	2.04
-25.00	700.30	388.02	6.20	1.80	884.94	2.28
-20.00	878.56	425.10	7.80	2.07	1,083.49	2.55
-15.00	1,087.79	458.62	9.69	2.37	1,310.53	2.86
-10.00	1,331.15	486.39	11.90	2.74	1,568.12	3.22

## CONDENSING TEMP. 45 °C

(SUBCOOLING : 22.2 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
-40.00	284.04	281.61	2.67	1.01	407.48	1.45
-35.00	370.30	319.76	3.49	1.16	516.19	1.61
-30.00	479.81	363.12	4.53	1.32	650.64	1.79
-25.00	614.31	409.66	5.82	1.50	811.19	1.98
-20.00	775.84	457.34	7.37	1.70	998.65	2.18
-15.00	966.80	504.04	9.21	1.92	1,214.25	2.41
-10.00	1,189.95	547.56	11.39	2.17	1,459.60	2.67

## CONDENSING TEMP. 55 °C

(SUBCOOLING : 22.2 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
-40.00	249.28	287.26	2.53	0.87	376.50	1.31
-35.00	319.73	324.67	3.25	0.98	468.60	1.44
-30.00	412.98	370.48	4.20	1.11	588.02	1.59
-25.00	530.45	422.51	5.41	1.26	734.52	1.74
-20.00	673.83	478.60	6.90	1.41	908.31	1.90
-15.00	845.11	536.56	8.69	1.58	1,110.08	2.07
-10.00	1,046.66	594.17	10.81	1.76	1,340.95	2.26

## ELECTRICAL ACCESSORIES

Kit:	1
Starter device:	CURRENT RELAY
Engineering code:	MTRP-0029
Run capacitor:	--
Starting capacitor:	64-77

Thermal protector: T0634/G6

Institutes approved for this electric kit:

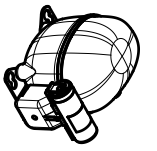


If purchased without electricals consult Embraco to verify the supplier of electricals approved for this compressor

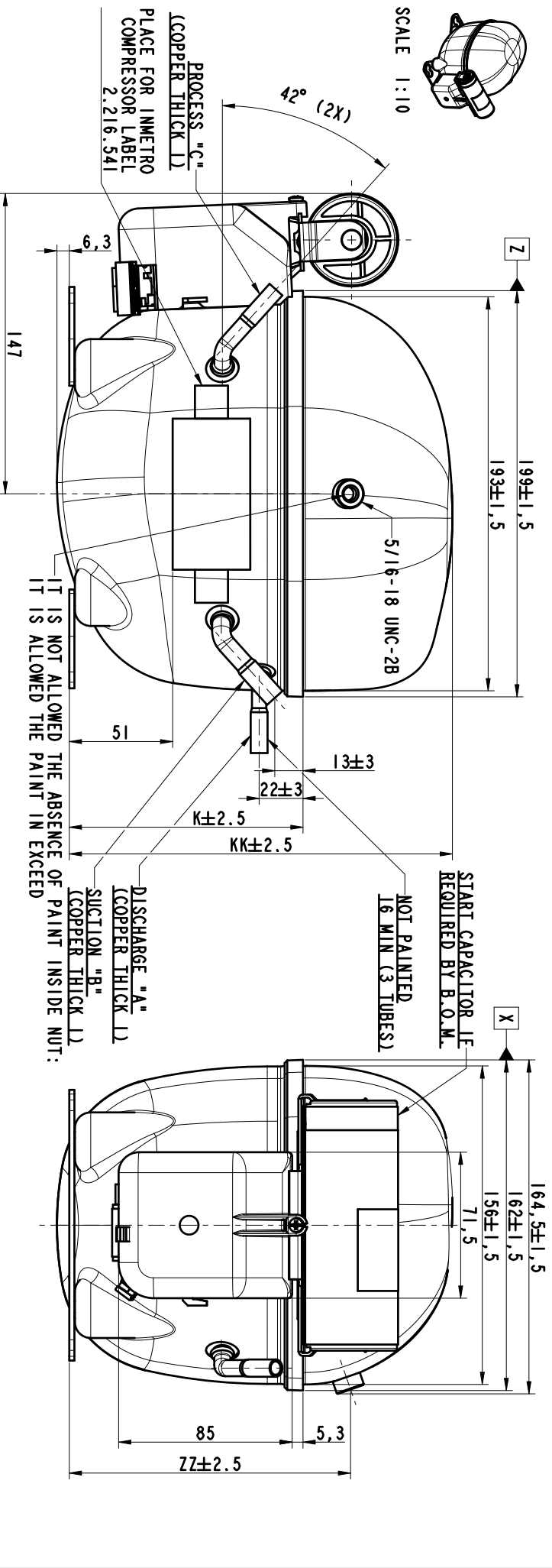
## MECHANICAL ACCESSORIES

Rubber damper: Yes

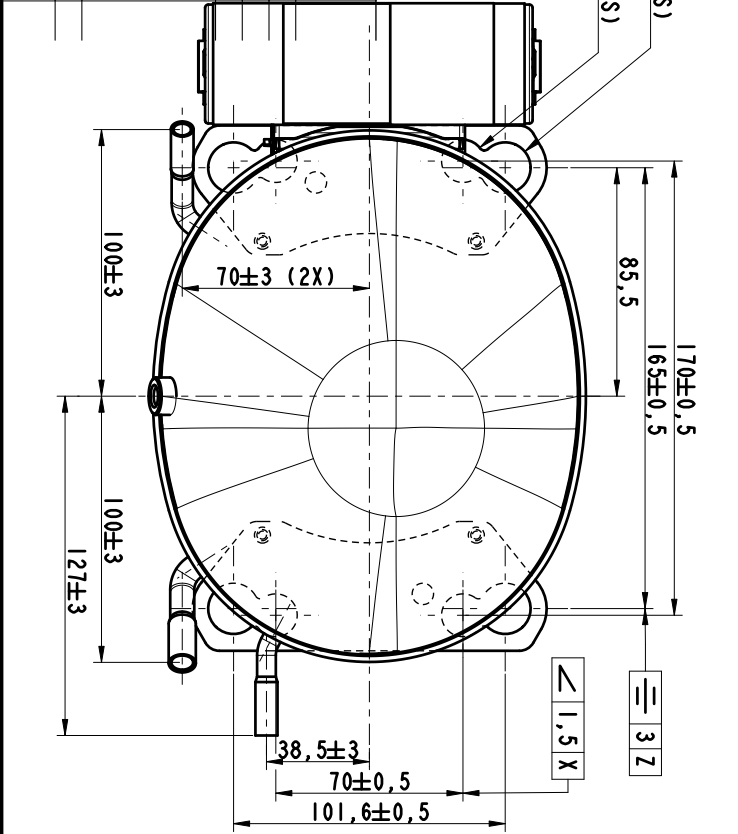
Metal bushing: Optional



SCALE 1:10



ECM	REVISION	LO	BY	APP	DATE	
31082	6	Moved from pg. 2 to pg. 1: NEK2140Z, NEK2150G, NEK2150H. Moved page 2	TAB	MG	RR	14.10.2013
42152	7	ADDED MODEL NEU6160Z	TAB	KK	RR	18.05.2016
42548	8	ADDED MODEL NEU6160Z	TAB	KK	RR	06.08.2016
39145	9	ADDED MODEL NEU6160Z	TAB	SS	MG	12.09.2016
43719	10	ADDED MODELS: NEK2160G; NEK2160H; NEK2160I; NEK2160J; NEK2160K; NEK2160L; NEK2160M; NEK2160N; NEK2160O; NEK2160P; NEK2160Q; NEK2160R; NEK2160S; NEK2160T; NEK2160U; NEK2160V; NEK2160W; NEK2160X; NEK2160Y; NEK2160Z	TAB	KK	MG	28.09.2016
43753	11	ADDED MODELS: NEK2160G; NEK2160H; NEK2160I; NEK2160J; NEK2160K; NEK2160L; NEK2160M; NEK2160N; NEK2160O; NEK2160P; NEK2160Q; NEK2160R; NEK2160S; NEK2160T; NEK2160U; NEK2160V; NEK2160W; NEK2160X; NEK2160Y; NEK2160Z	TAB	KK	MG	10.10.2016
43388	12	ADDED MODEL NEK2160G	TAB	KK	MG	26.10.2016
44703	13	CHANGED DIMENSION IN FROM 20 TO 25 mm AND FROM 107 TO 126 mm	TAB	KK	MG	05.01.2017



ZZ	KK	K	A	B	C	SHELL TYPE	MODELS
150	206	127	6.45-6.55	8.1-8.2	6.45-6.55	269.92	NEK2140Z NEK2150G NEK2140Z NEU2140Z NEU21688G NEU21786K NEU62206K
150	200	127	6.45-6.55	8.1-8.2	6.45-6.55	268.92	NEK6170Z NEK2134U NEK6210GK NEU2155U
137	188	115	6.45-6.55	8.1-8.2	6.45-6.55	267.90	NEK2116Z NEK6160Z NEK2121U NEK6181U NEK2125GK NEK6181GK
			6.45-6.55	8.1-8.2	6.45-6.55	861.92	NEK6132Z NEK6170Z NEK2125U NEK6144GK NEK2121GK NEK6152GK NEU6187Z
			X 20 DEEP	X 20 DEEP	X 20 DEEP	957.92	NEK6144Z NEU6160Z NEK6165U NEK2121GK NEK6152GK NEU6187Z

**embraco**

GEN. TOL. :  
ANG. TOL. :  
SCALE : 1:2  
REPLACE

NAME : EXTERNAL VIEW "NEK", "NEU" WITH NUT  
VISTA EXTERNA DADO "NEK", "NEU"  
EXTERNY POHLAD "NEK", "NEU" S MATICOU

CODE :  
DRAWN : ZUZANA FAZEMASOVA  
APP. : ROBERT REICH 17.05.2010

ECM : 515658

No. : 1960934