



Model: EMT6144Z  
Code: 194PA67

**embraco** POWER IN.  
CHANGE ON

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

Motor type:	CSIR
Starting torque:	HST
HP:	1/5
Displacement:	5.19 cm <sup>3</sup>

### OPERATING CONDITION : ARI HBP

Evaporation Temp.	7.2 °C	Return Temp.	18.3 °C	Superheating	11.1 K
Condensing Temp.	54.4 °C	Liquid Temp.	54.4 °C	Subcooling	0.0 K

<b>Cooling capacity</b>	<b>Power consumption</b>	<b>Mass flow rate</b>	<b>Efficiency</b>
517.88 W	234.73 W	13.87 kg/h	2.21 W/W

### APPLICATION

Evaporating temperature range:	-15 to 10 °C	Cooling type:	Fan Cooling
Permanent operating temperature (peak) :	60 (70) °C	Air Flow	--
Expansion device:	Capillary tube or Expansion valve	Maximum motor temperature:	130 °C

### ELECTRICAL DATA

Start winding resistance at 25°C (77°F):	0 Ω +/- 8%	Run winding resistance at 25°C (77°F):	0 Ω +/- 8%
FLA - full load amperage L/MBP [A] 50 Hz / 60 Hz:	- / -	LRA (A) 50 Hz / 60 Hz:	8.5 / -
		FLA - full load amperage HBP [A] 50 Hz / 60 Hz:	- / -

### MECHANICAL DATA

Bore:	21 mm	Stroke:	7.5 mm
		Displacement:	5.19 cm <sup>3</sup>

### OTHER INFORMATION

Weight:	7.8 kg	Oil charge:	180 ml
Lubricant type:	Polyolester ISO22	Nitrogen charge:	No

### EXTERNAL SETTINGS

	Shape	Material	Diameter [mm]
-			
Suction connector	Slanted 42°	Copper	6.10
Discharge connector	Straight	Copper	4.86
Process connector	Slanted 42°	Copper	6.10
Base plate:	European Standard	Tray holder:	Yes

### 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 HBP	517.88	234.73	13.87	2.21	633.53	2.70
ARI MBP	306.55	181.40	8.22	1.69	393.66	2.17
ASHRAE CBP	328.41	171.92	7.15	1.91	422.30	2.46
ASHRAE HBP 32	656.72	224.38	13.08	2.93	773.60	3.45
ASHRAE HBP 46	584.26	222.45	12.93	2.63	701.34	3.15
CECOMAF HBP	485.79	217.16	11.93	2.24	600.57	2.77
EN12900 HBP**	520.81	208.64	12.14	2.50	627.54	3.01
EN12900 MBP**	296.18	155.14	6.47	1.91	375.85	2.42

\* 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
-15.00	266.87	134.26	5.32	1.99	330.67	2.46
-10.00	334.53	145.52	6.70	2.30	404.00	2.78
-5.00	415.53	156.73	8.36	2.65	489.57	3.12
0.00	511.87	167.25	10.35	3.06	588.96	3.52
5.00	625.63	176.08	12.72	3.55	703.66	4.00
10.00	759.08	181.84	15.55	4.17	835.32	4.59

**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
-15.00	235.00	141.04	5.11	1.67	306.47	2.17
-10.00	296.18	155.14	6.47	1.91	375.85	2.42
-5.00	368.46	169.69	8.08	2.17	455.44	2.68
0.00	454.27	184.50	10.02	2.46	547.47	2.97
5.00	555.76	199.00	12.34	2.79	653.68	3.28
10.00	675.11	212.30	15.11	3.18	775.67	3.65

**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
-15.00	198.59	144.06	4.77	1.38	274.20	1.90
-10.00	256.11	161.90	6.17	1.58	343.48	2.12
-5.00	321.00	179.73	7.78	1.79	418.56	2.33
0.00	396.69	198.15	9.67	2.00	503.42	2.54
5.00	485.79	217.16	11.93	2.24	600.57	2.77
10.00	590.56	236.33	14.63	2.50	711.89	3.01

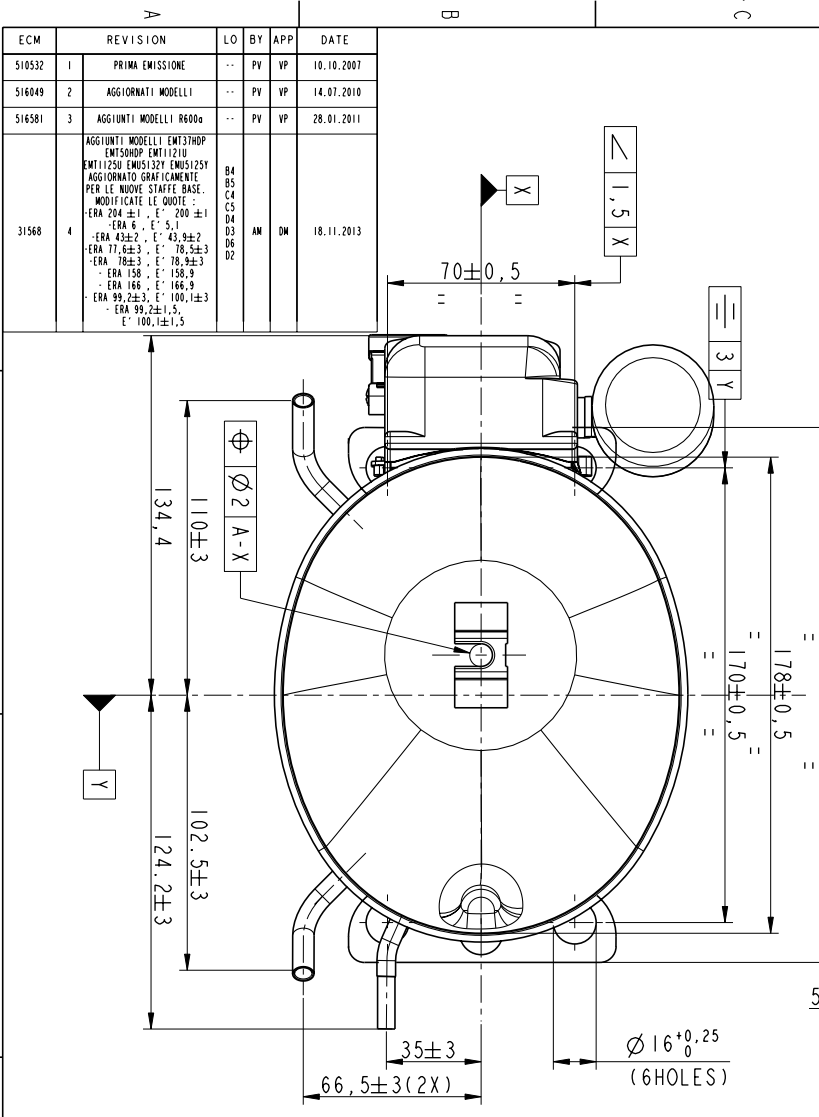
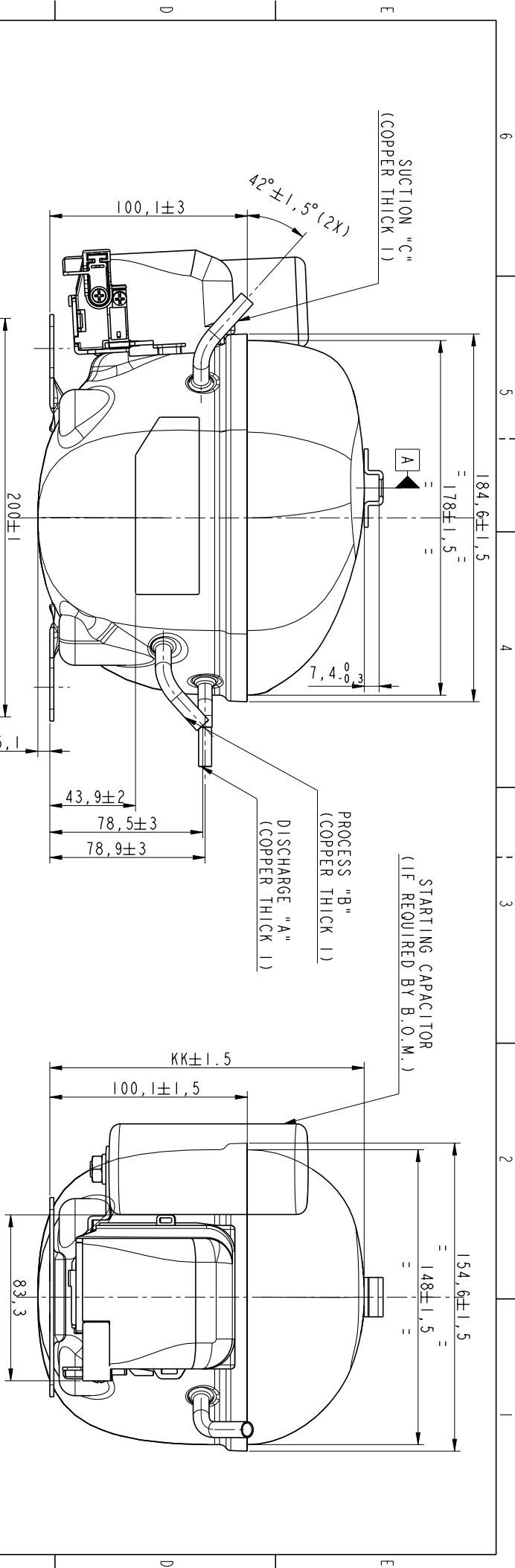
**ELECTRICAL ACCESSORIES**

<b>Kit:</b>	1
<b>Starter device:</b>	CURRENT RELAY
<b>Engineering code:</b>	MTRP-34
<b>Run capacitor:</b>	--
<b>Starting capacitor:</b>	43-53

**Thermal protector:** T0827/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



EMC	REVISION	LO	BY	APP	DATE	
510532	1	PRIMA EMISSIONE	..	PV	VP	10.10.2007
516049	2	AGGIORNATI MODELLI	..	PV	VP	14.07.2010
516581	3	AGGIUNTI MODELLI R600a	..	PV	VP	28.01.2011
31560	4	AGGIUNTI MODELLI EMT37HDP EMT50HDP EMT121U EMT125U EMT5125Y EMT5125Y AGGIORNATO GRAFICAMENTE PER LE NUOVE STAFFE BASE. MODIFICATE LE QUOTE : - ERA 204 ±1,5, E' 200 ±1 - ERA 6, E' 5,1 - ERA 43±2, E' 43,9±2 - ERA 71,6±3, E' 78,5±3 - ERA 16±3, E' 78,9±3 - ERA 158, E' 158,9 - ERA 166, E' 166,9 - ERA 99,2±3, E' 100,1±3 - ERA 99,2±1,5, E' 100,1±1,5 - ERA 100,1±1,5	B4 B5 B6 B7 B8 B9 D2	AM	DM	18.11.2013

EMC	APP.	VALERO	10.10.2007
EMC	510532		

MATERIAL :			
KK	A	B	C
158,9	4.86-5.02	6.1-6.2	6.1-6.2
X 15 DEEP	X 15 DEEP	X 15 DEEP	X 15 DEEP

166,9	4.86-5.02	6.1-6.2	6.1-6.2
X 15 DEEP	X 15 DEEP	X 15 DEEP	X 15 DEEP

MODELS	EMT37HDP	EMT50HDP	EMT45HDP
EMT6144Z	EMT6160Z	EMT6170Z	
EMT2117GK	EMT2121GK	EMT2125GK	
EMT6144GK	EMT6152GK	EMT6165GK	
EMT1121U	EMT1125U		
EMT2117U	EMT2121U	EMT2125U	
EMT6144U	EMT6152U	EMT6165U	
EMT6144Y	EMT6160Y	EMT6165Y	EMT5132Y

R 600a  
CE

R 290  
CE

R 404A  
CE

R 134a  
CE

**Embraco EMT6170Z**  
TECHNICAL PRODUCT 220-240V-50Hz  
3.7 ltr  
ESTER OIL WORK 1700  
NO START THROUGH STARTING INVERT  
1.948A67 28/00/01 2.3369877

NAME	VISTA ESTERNA EMT Commercial EXTERNAL VIEW EMT Commercial	
APP.	VALERO 10.10.2007	
EMC	510532	

GEN. TOL. :	
ANG. TOL. :	
SCALE :	1 : 2
REPLACE	
No.	1.960.919