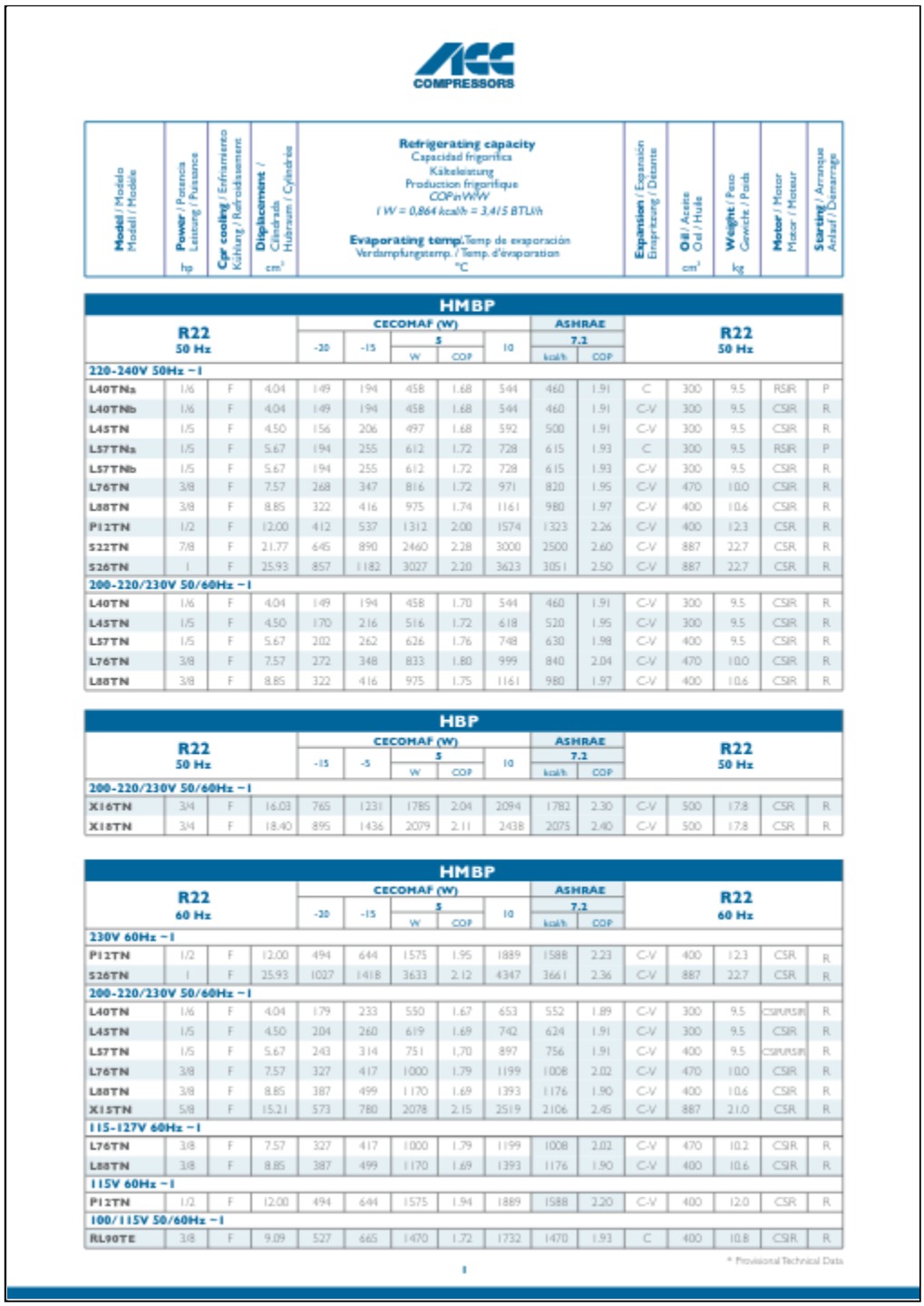
Mbsm.pro, Compressor, P14TY, 3/8 hp, Cooling, hmbp, r12, 1ph220v

7 April 2025 | No Comments



COMPRESSORS

Model / Modelo Modell / Modèle	Power / Potencia Leistung / Puissance hp	Cpr cooling / Enfriamiento Kühlung / Refroidissement	Displacement / Cilindrada Hubraum / Cylindrée cm³	Refrigerating capacity Capacidad frigorífica Kälteleistung Production frigorifique COP in W/W 1 W = 0,864 kcal/h = 3,415 BTU/h Evaporating temp. Temp de evaporación Verdampfungstemp. / Temp. d'évaporation °C	Expansion / Expansión Entspritzung / Détente	Oil / Aceite Öl / Huile cm³	Weight / Peso Gewicht / Poids kg	Motor / Motor Motor / Moteur	Starting / Arranque Anlauf / Démarrage

HMBP

R22 50 Hz				CECOMAF (W) -20	-15	5 W	5 COP	10	ASHRAE 7.2 kcal/h	ASHRAE 7.2 COP	R22 50 Hz				
220-240V 50Hz ~ I															
L40TNa	1/6	F	4.04	149	194	458	1.68	544	460	1.91	C	300	9.5	RSIR	P
L40TNb	1/6	F	4.04	149	194	458	1.68	544	460	1.91	C-V	300	9.5	CSIR	R
L45TN	1/5	F	4.50	156	206	497	1.68	592	500	1.91	C-V	300	9.5	CSIR	R
L57TNa	1/5	F	5.67	194	255	612	1.72	728	615	1.93	C	300	9.5	RSIR	P
L57TNb	1/5	F	5.67	194	255	612	1.72	728	615	1.93	C-V	300	9.5	CSIR	R
L76TN	3/8	F	7.57	268	347	816	1.72	971	820	1.95	C-V	470	10.0	CSIR	R
L88TN	3/8	F	8.85	322	416	975	1.74	1161	980	1.97	C-V	400	10.6	CSIR	R
P12TN	1/2	F	12.00	412	537	1312	2.00	1574	1323	2.26	C-V	400	12.3	CSR	R
S22TN	7/8	F	21.77	645	890	2460	2.28	3000	2500	2.60	C-V	887	22.7	CSR	R
S26TN	1	F	25.93	857	1182	3027	2.20	3623	3051	2.50	C-V	887	22.7	CSR	R
200-220/230V 50/60Hz ~ I															
L40TN	1/6	F	4.04	149	194	458	1.70	544	460	1.91	C-V	300	9.5	CSIR	R
L45TN	1/5	F	4.50	170	216	516	1.72	618	520	1.95	C-V	300	9.5	CSIR	R
L57TN	1/5	F	5.67	202	262	626	1.76	748	630	1.98	C-V	400	9.5	CSIR	R
L76TN	3/8	F	7.57	272	348	833	1.80	999	840	2.04	C-V	470	10.0	CSIR	R
L88TN	3/8	F	8.85	322	416	975	1.75	1161	980	1.97	C-V	400	10.6	CSIR	R

HBP

R22 50 Hz				CECOMAF (W) -15	-5	5 W	5 COP	10	ASHRAE 7.2 kcal/h	ASHRAE 7.2 COP	R22 50 Hz				
200-220/230V 50/60Hz ~ I															
X16TN	3/4	F	16.03	765	1231	1785	2.04	2094	1782	2.30	C-V	500	17.8	CSR	R
X18TN	3/4	F	18.40	895	1436	2079	2.11	2438	2075	2.40	C-V	500	17.8	CSR	R

HMBP

R22 60 Hz				CECOMAF (W) -20	-15	5 W	5 COP	10	ASHRAE 7.2 kcal/h	ASHRAE 7.2 COP	R22 60 Hz				
230V 60Hz ~ I															
P12TN	1/2	F	12.00	494	644	1575	1.95	1889	1588	2.23	C-V	400	12.3	CSR	R
S26TN	1	F	25.93	1027	1418	3633	2.12	4347	3661	2.36	C-V	887	22.7	CSR	R
200-220/230V 50/60Hz ~ I															
L40TN	1/6	F	4.04	179	233	550	1.67	653	552	1.89	C-V	300	9.5	CSIR/RSIR	R
L45TN	1/5	F	4.50	204	260	619	1.69	742	624	1.91	C-V	300	9.5	CSIR	R
L57TN	1/5	F	5.67	243	314	751	1.70	897	756	1.91	C-V	400	9.5	CSIR/RSIR	R
L76TN	3/8	F	7.57	327	417	1000	1.79	1199	1008	2.02	C-V	470	10.0	CSIR	R
L88TN	3/8	F	8.85	387	499	1170	1.69	1393	1176	1.90	C-V	400	10.6	CSIR	R
X15TN	5/8	F	15.21	573	780	2078	2.15	2519	2106	2.45	C-V	887	21.0	CSR	R
115-127V 60Hz ~ I															
L76TN	3/8	F	7.57	327	417	1000	1.79	1199	1008	2.02	C-V	470	10.2	CSIR	R
L88TN	3/8	F	8.85	387	499	1170	1.69	1393	1176	1.90	C-V	400	10.6	CSIR	R
115V 60Hz ~ I															
P12TN	1/2	F	12.00	494	644	1575	1.94	1889	1588	2.20	C-V	400	12.0	CSR	R
100/115V 50/60Hz ~ I															
RL90TE	3/8	F	9.09	527	665	1470	1.72	1732	1470	1.93	C	400	10.8	CSIR	R

* Provisional Technical Data

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https://www.mbsm.pro/wp-content/uploads/2025/04/Mbsm_dot_pro_private_PDFMbsm_dot_pro_private_PDF_S26TY.pdf

The **P14TY** is a refrigerant compressor model listed in the provided datasheet, designed for use in refrigeration or air conditioning systems. Below is a summarized technical breakdown of its key specifications:

P14TY Compressor Specifications

Parameter	Value	Notes
Model	P14TY	Part of a series (likely Panasonic or similar brand).

Parameter	Value	Notes
Power (HP)	3/8 HP	~0.375 horsepower.
Displacement	14.00 cm³	Cylinder volume per revolution.
Refrigerant	R12 (CFC)	Older refrigerant (now phased out; check local regulations).
Cooling Capacity	– **W**: 985 W – **kcal/h**: 996 – **BTU/h**: ~3,360	At -25°C evaporating temp (CECOMAF conditions).
COP (Efficiency)	1.73 (W/W)	Coefficient of Performance.
Oil Type/Volume	400 cm³	Mineral or alkylbenzene oil (for R12).
Weight	11.5 kg	
Motor Type	CSIR (Capacitor Start, Induction Run)	Single-phase operation.
Starting Method	Relay (R)	
Voltage/Frequency	220-240V, 50Hz	Single-phase AC.
Expansion Type	Capillary tube (C) or Valve (V)	Configurable based on application.

Key Observations

1. **Refrigerant (R12)**:
   - The P14TY is designed for **R12**, an obsolete CFC refrigerant banned under the Montreal Protocol due to ozone depletion. Modern alternatives (e.g., R134a, R404A) require retrofitting or replacement.
2. **Applications**:
   - Likely used in **medium-temperature refrigeration** (e.g., commercial refrigerators, chillers) given its capacity and COP at -25°C evaporating temperature.
3. **Efficiency (COP 1.73)**:
   - Lower COP compared to modern compressors, indicating higher energy consumption.
4. **Replacement Considerations**:
   - If retrofitting for alternative refrigerants, ensure compatibility with oil type (e.g., POE for HFCs) and system components.
   - Verify electrical specs (voltage, starting torque) for new installations.

Testing Conditions (CECOMAF/ASHRAE)

- **Evaporating Temp**: -25°C (LBP testing for low-temperature applications).
- **Condensing Temp**: 55°C.
- **Ambient Temp**: 32°C.

Actionable Recommendations

- **For Maintenance**:
  - Check oil levels and contamination if still using R12.
  - Inspect capacitors/relays (common failure points in CSIR motors).
- **For Replacement**:
  - Consider modern equivalents (e.g., Panasonic/Copeland models for R404A/R134a).
  - Consult HVAC technician for system compatibility and retrofitting.

Attachment
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3/8 HP

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R12

Tags: 3/8 HP, Compressor, Cooling, HMBP, mbsm.pro, P14TY, R12

← Mbsm.pro, Compressor, BTF60AA, 1/7 hp, r600a, lbp, Serbian Compressor, serie T, from 180 L to 200 L, from 70 to 75 W