



**LT Series**

*One Compressor,  
two stage work.  
Designed for high  
compression lift.  
Application in  
low temperature and  
Air-source heat pump*

**Compound Two-stage  
Screw Compressor**

**LT Series**

*R22, R134a, R404A, R448A, R449A,  
R507A, R513A, R1234yf, R1234ze*



5580 Enterprise Pkwy., Fort Myers, FL 33905 Office (239) 694-0089 Fax: (239) 694-0031

[www.mcscontrols.com](http://www.mcscontrols.com)

# Highlights of LT Series Screw Compressor



## High-efficiency Screw Rotor Profile

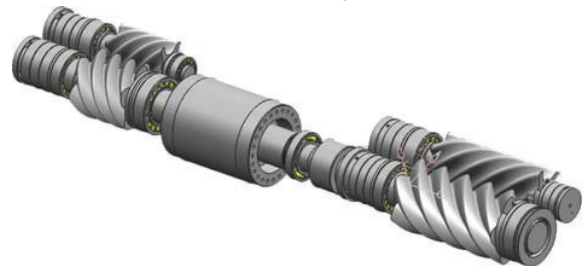
- 5-to-6 rotor profile patented in Taiwan ,US ,UK, and China
- Design according to characteristics of refrigerants
- Hyper volume efficiency and minimum clearance

## User-friendly Structure and Mechanism

- Adjustable capacity control in low stage
- Easy start under minimum load with unloading-type slide valve in high stage
- Minimized rotor reversal time after compressor stop with suction check valve
- Low noise and vibration with built-in discharge muffler
- Dew-free cable box located at medium temperature section

## Durable Bearing Structure

- High-quality bearings (radial and axial resistance)
- Additional bearings for backward rotation
- $\alpha$  balance piston against axial thrust
- Heavy-duty design



## Complete Protection & Accessories

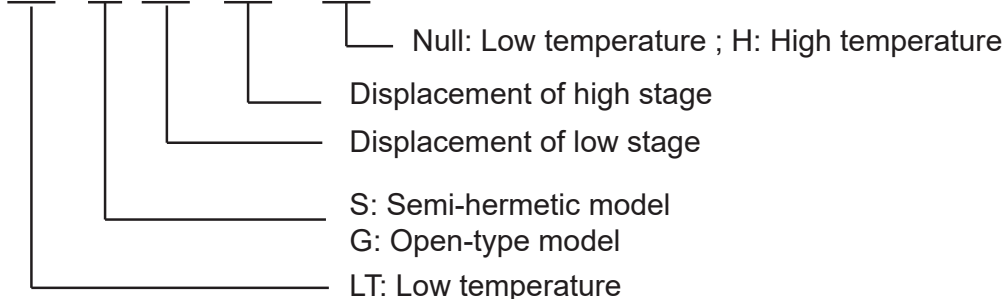
- Built-in motor temperature sensor Pt100
- Discharge temperature thermistor & motor temperature thermistor
- Liquid injection to motor and to chamber for low & high stages
- Gas flow pipes and injection ports are in different connection sides for easy piping and installation

## Other Advantages

- Open-type model for NH<sub>3</sub> and semi-hermetic model for R404A, R507 and R22
- Suction filter of high stage with easy installation and further protection
- Cooling down motor with option motor cooling paths

## Compressor Nomenclature

LT - X -XX / XX - (H)

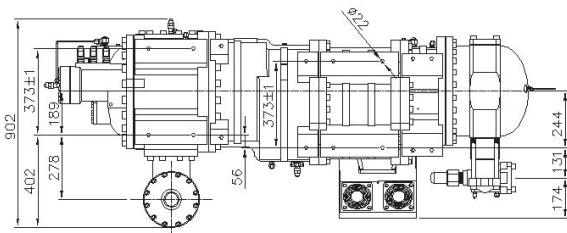


## Technical Data

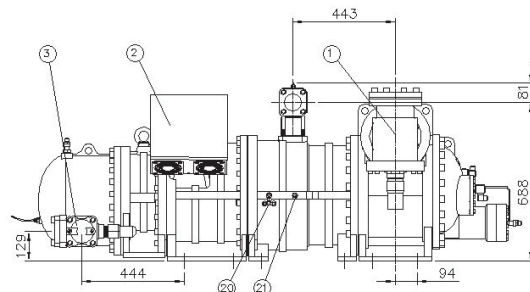
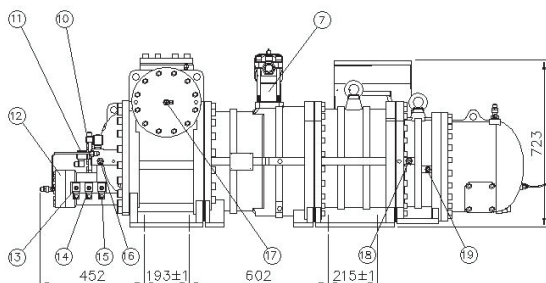
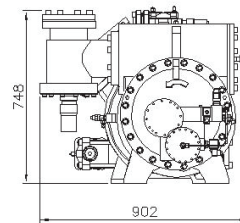
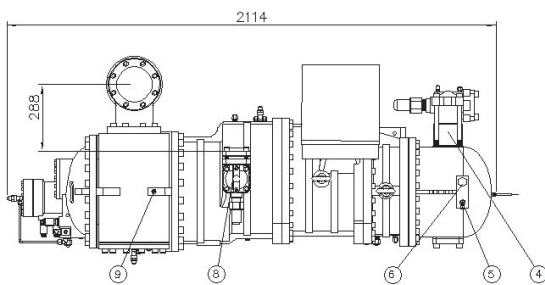
Model		LT-S-20/10	LT-S-30/12	LT-S-45/20	LT-S-55/25	LT-S-65/32	LT-S-83/41
Evaporating Temperature		°C R507& R404A : -65°C to -30°C, R22: -60°C to -30 °C					
Compressor	Rated Speed (50Hz/60Hz)	rpm 2950/3550					
	Displacement (Low stage)	m3/h 224/268	316/379	450/540	551/661	651/781	840/1008
	Displacement (High stage)	m3/h 99/119	137/164	207/248	257/308	313/375	396/475
	Capacity Control	% 10, 50, 100 (STEP TYPE)				10, 50, 75, 100 (STEP TYPE)	
	Noise Level	dB 80	81	83	84	86	87
	Weight	kg 598	620	1158	1195	1395	1430
	Lubrication Type	Pressure differential					
Motor	Type	3 phase, 2 pole, squirrel cage induction motor					
	Starting	Y-Delta					
	Voltage (50Hz)	V 380, 400, 415					
	Voltage (60Hz)	V 380, 440, 460, 480, 575					
	Nominal horse Power	hp 50	75	100	120	140	160
	Insulation	Class F					
	Protection	PTC +PT100					
Pressure Test	bar	35					

## Compressor Outline

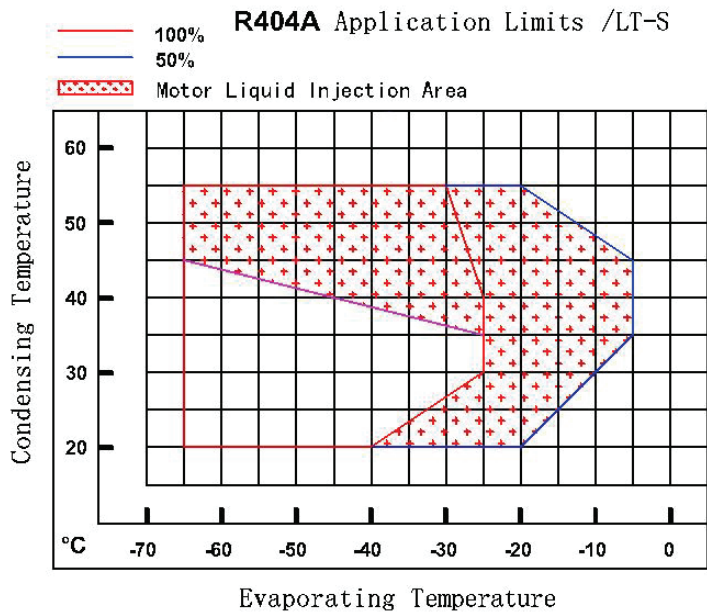
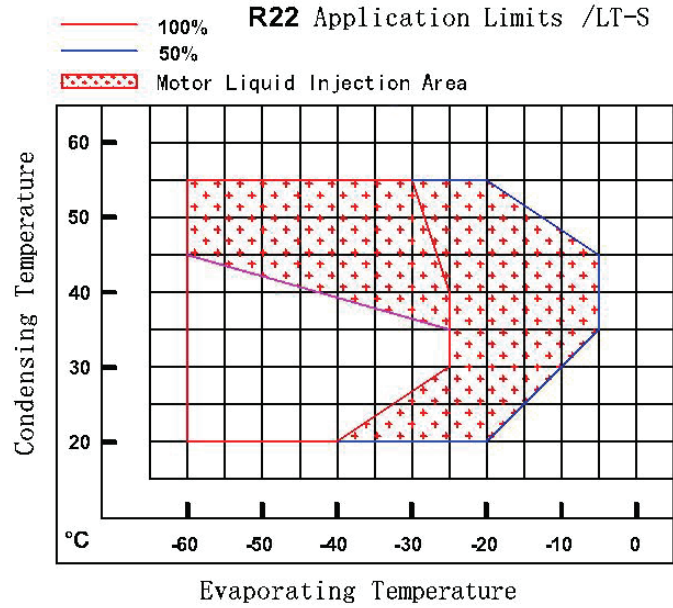
Model: LT-S-83/41



No.	Name	Note	No.	Name	Note
1	Stop valve	5"	13	Solenoid valve	75%
2	Cable box		14	Solenoid valve	50%
3	Stop valve	2-1/2"	15	Solenoid valve	10%
4	Check valve	2-1/2"	16	Connector	5/8"Flare
5	Angle valve	1/4"Flare	17	Angle valve	1/4"Flare
6	Plug	1"	18	Connector	3/8"Flare
7	Check valve(ECO)	2"	19	Liquid injection connector (oil or refrigerent)	3/8"Flare
8	Stop valve(ECO)	2",ECO port	20	Angle valve& Three Way Connection	1/4"Flare
9	Connector	1/4"	21	Liquid injection connector	5/8"Flare
10	Solenoid valve	25%			
11	Solenoid valve	100%			
12	Cylinder cover plate				



# Application Limits



North American Distributor of Hanbell Compressors



5580 Enterprise Parkway / Fort Myers, FL 33905 / Phone: 239-694-0089

[www.mcscontrols.com](http://www.mcscontrols.com)

HBCE-LT-16-A(1000)