



Sensata
Technologies

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6SP Series

Refrigeration Package

Product Overview

The Sensata Technologies 6SP series Refrigeration Package is a compact motor starter & motor protector package. The 6SP is suitable for compressors used in refrigerators freezers, water coolers, dehumidifiers, vending machines and similar refrigeration applications.

The 6SP serves as combination control which :

1. Uses industry leading 4(5)TM motor protector
2. Performs ceramic PTC (positive temperature coefficient) solid-state starter function
3. Available for RSIS, RSCR, CSIR and CSCR applications
4. Available with 1/4" (QC#250), 3/16" (QC#187) and screw terminations
5. I.B.P.S. function in the starter function (6SP1/3/5/7 series)
6. RoHS compliance

Convenience

- Fits most existing compressor terminal fences
- Elimination of 4(5)TM reapplication in most cases
- Plugs directly & easily onto the compressor terminal pins
- Provides ground, "N" and "L" terminals
- Provides significant installed cost savings opportunities
- Provides low dissipates under normal operating conditions by using stainless steel springs

- Compressor Starting Method
RSCR, RSIR, CSCR, CSIR
- Housing Material
PPS, Vyloglass, PBT or Phenol
- Combination of Terminals
QC#187, #250, Screw etc.

R25 (ohms)	Dia. (mm)	Thick. (mm)	Vamx(V) Imax(A)	Application Voltage(V)
33±20%	16	2.5	355 / 6	240
22±20%	16	2.5	300 / 7	240
15±20%	20	2.5	400 / 4	240
12+4/-3 Ω	20	3.1	350 / 8	240
15±20%	16	2.5	350 / 8	240

Agency Certified

ENEC : File 2014531.01
CQC : File CQC02002001335
UL / c-UL : -----

6SP Coding System

6SP X YYY

6SP : Device identification

X : Physical configurations.

"X"	Physical Drawing	Physical Features		
		Ground Terminal	Relay Terminal	IBPS
1 / 5	See P.2	×	×	○
3 / 7	See P.2	×	○	○
9	See P.3	○	×	×
0	See P.4	○	×	×

YYY :

The order of generating (from 001 to 999)
The followings are contained in this Y Y Y.

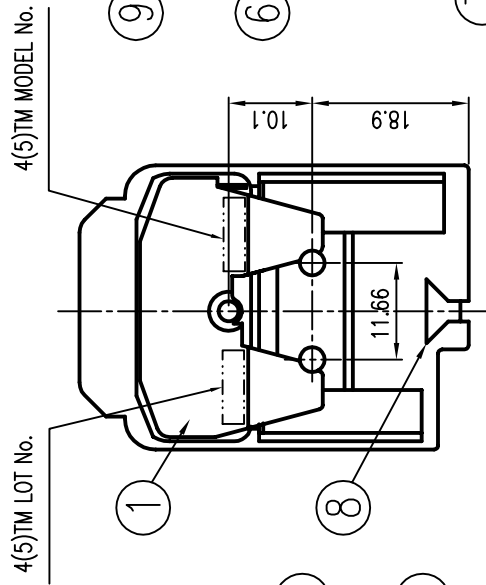
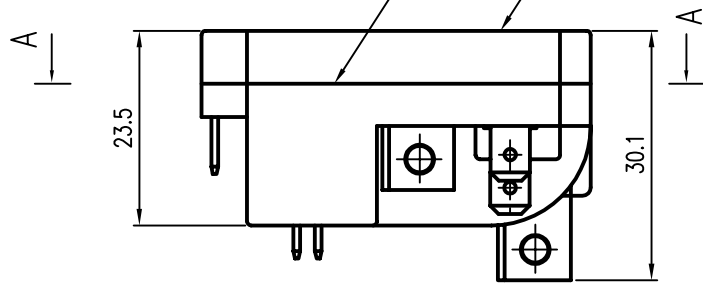
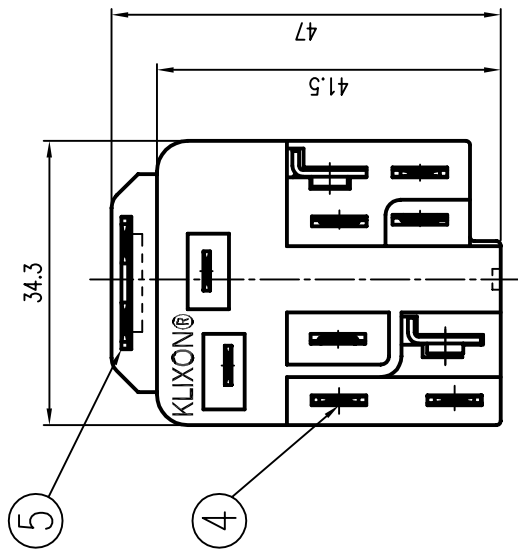
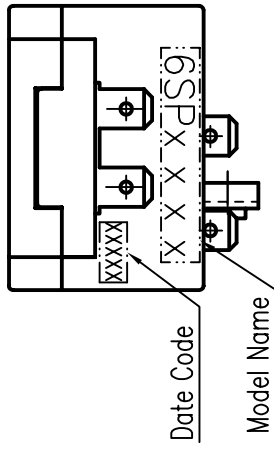
- 4(5)TM Type
- PTC Type

Cautions

Keep 6SP away from the following atmosphere to avoid deterioration of the characteristics of this product or failures in the worst case.

- Corrosive or deoxidizing gases atmosphere (Ex. Cl₂, H₂S, NH₃, SOx, NOx, etc.)
 - Volatile or flammable gas atmosphere
 - Dusty place
 - Under abnormal atmosphere pressure
 - To be exposed to water or to be condensed dew by excessive humidity
 - To be expose salt water, oil, chemicals and organic solvent
 - Under the excessive vibration
 - Other atmosphere same as above
 - Avoid to use PVC(Polyvinyl Chloride) as an insulation material around the terminals connecting.
- 6SP is designed to be used in conjunction with an electrical cover.

Nominal dimensions are shown for reference purpose only.



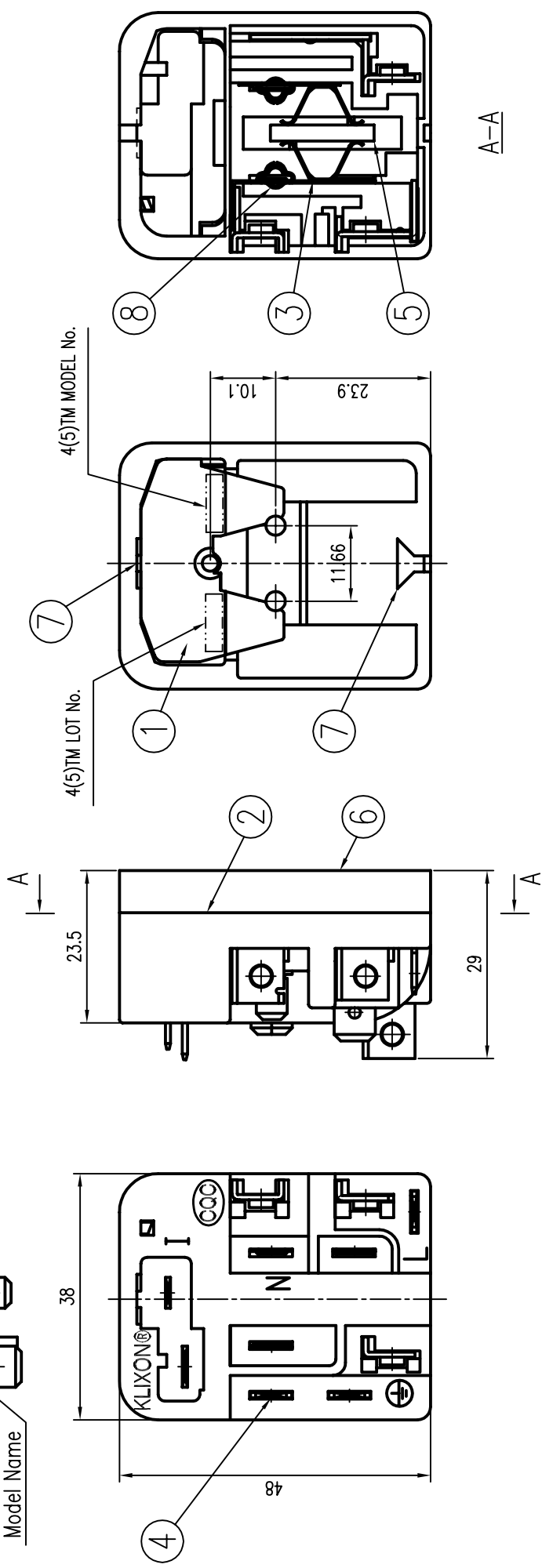
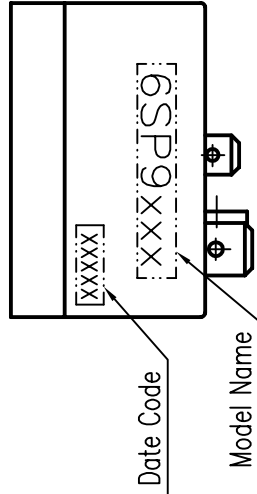
A-A

No.	PART NAME	MATERIAL	DESCRIPTION
9	Pin connector	Stainless Steel	
8	Clamp	Stainless Steel	
7	Base	PPS, Vyrograss, PBT or Phenol	UL 94-V0
6	PTC element	BaTiO ₃ Semiconductor	See POSISTOR rating list
5	Relay terminal	Brass	QC#187 or QC#250
4	Terminal	Brass or Stainless Steel	QC#187 or QC#250 or Screw(M3.5)
3	Spring	Ni plated Stainless Steel	
2	Cover	PPS, Vyrograss, PBT or Phenol	UL 94-V0
1	4(5)TM motor protector		

Part No.	Relay Terminal
6SP1xxx 6SP5xxx	N/A
6SP3xxx 6SP7xxx	Applicable

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 TITLE
 6SP1,3,5,7xxx Physical Dwg
 SCALE
 FREE

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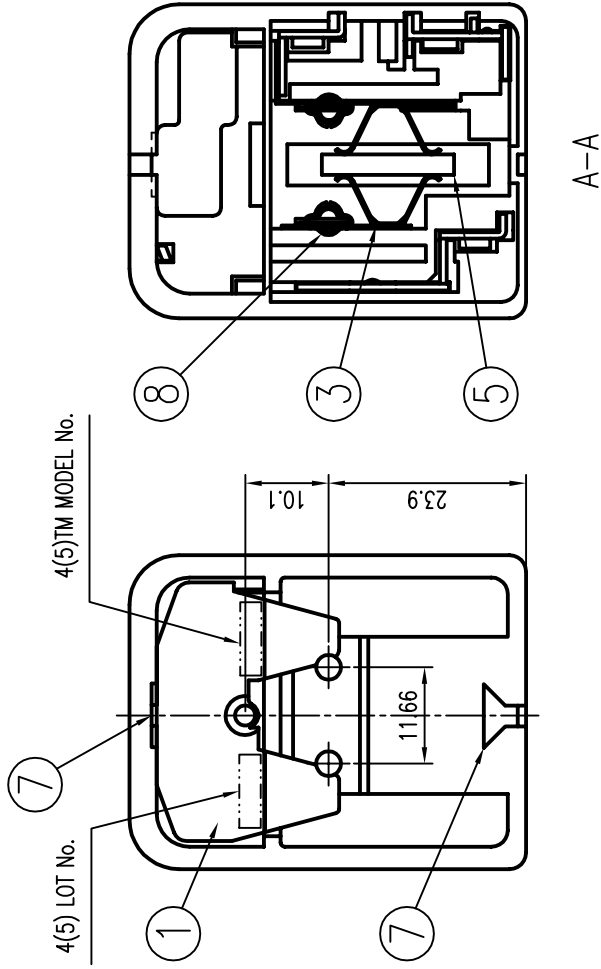
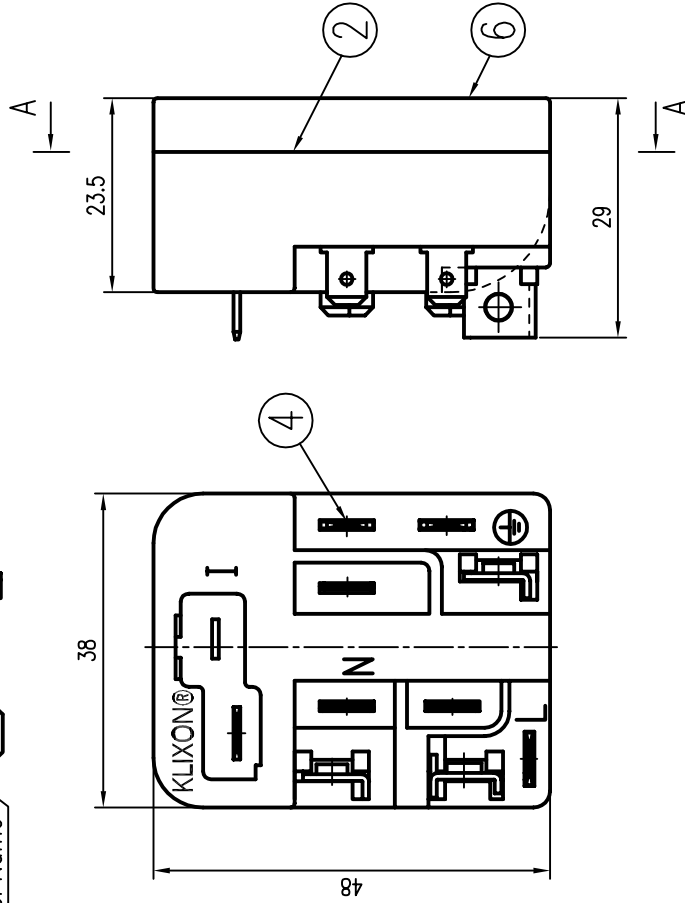
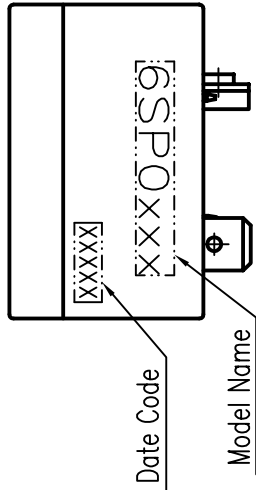
No.	PART NAME	M A T E R I A L	DESCRIPTION
8	Pin connector	Stainless Steel	
7	Clamp	Stainless Steel	
6	Base	PPS, Vylograss, PBT or Phenol	UL 94-V0
5	PTC element	BaTiO ₃ Semiconductor	See POSISTOR rating list
4	Terminal	Brass or Stainless Steel	QC#187 or QC#250 or Screw(M3.5)
3	Spring	Ni plated Stainless Steel	
2	Cover	PPS, Vylograss, PBT or Phenol	UL 94-V0
1	4(5)™ motor protector		

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TITLE: 6SP9xxx Physical Dwg

SCALE: FREE

Nominal dimensions are shown for reference purpose only.



8	Pin connector	Stainless Steel	
7	Clamp	Stainless Steel	
6	Base	PPS, Vyligrass, PBT or Phenol	UL 94-V0
5	PTC element	BaTiO ₃ Semiconductor	See POSISTOR rating list
4	Terminal	Brass or Stainless Steel	QC#187 or QC#250 or Screw(M3.5)
3	Spring	Ni plated Stainless Steel	
2	Cover	PPS, Vyligrass, PBT or Phenol	UL 94-V0
1	4(5)TM motor protector		
No.	PART NAME	MATERIAL	DESCRIPTION

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TITLE

6SP0xxx Physical Dwg

SCALE

FREE