



Sensata
Technologies

The World Depends on Sensors and Controls

KLIXON
®

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.

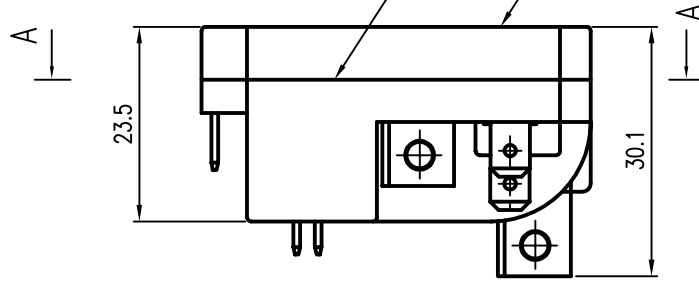
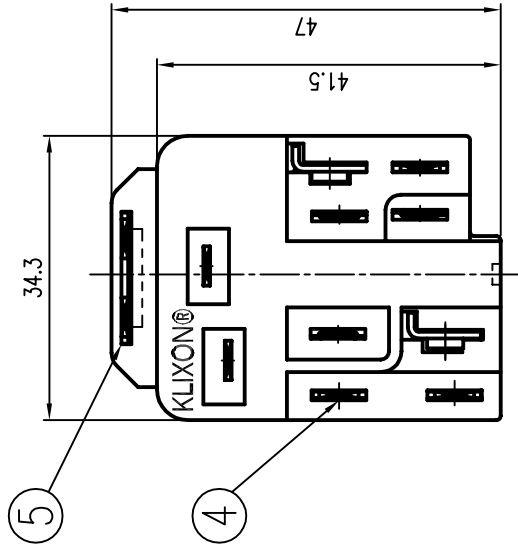
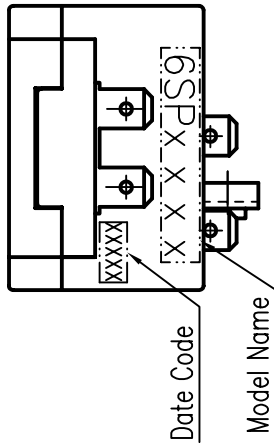
- 4(5)TM Type
- PTC Type

Cautions

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

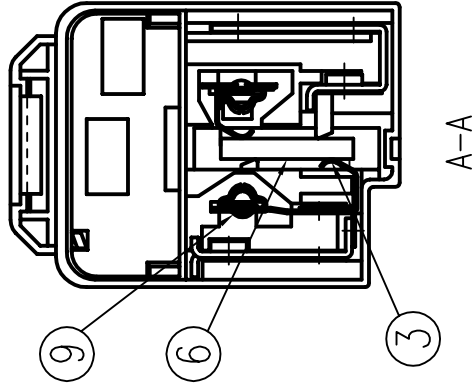
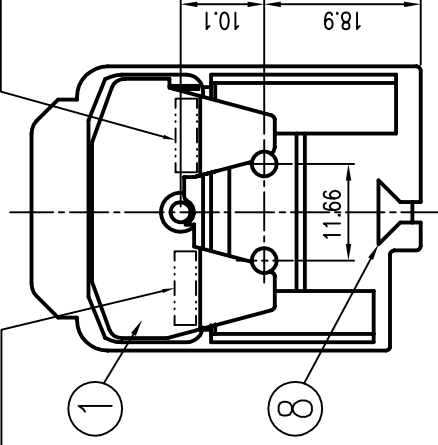
- Corrosive or deoxidizing gases atmosphere (Ex. Cl₂, H₂S, NH₃, SOx, NOx, etc.)
 - Volatile or flammable gas atmosphere
 - Dusty place
 - Under abnormal atmosphere pressure
 - To be exposed to water or to be condensed dew by excessive humidity
 - To be expose salt water, oil, chemicals and organic solvent
 - 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.



4(5)TM LOT No.

4(5)TM MODEL No.



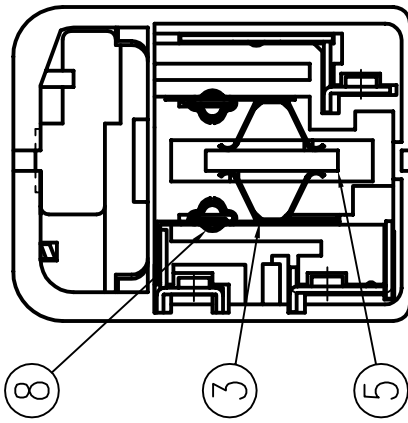
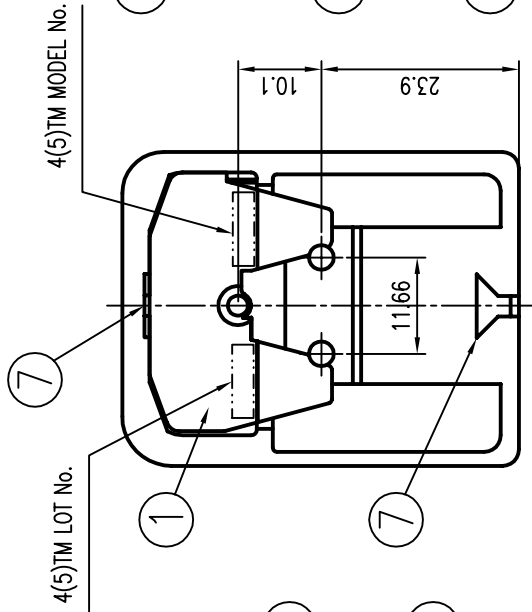
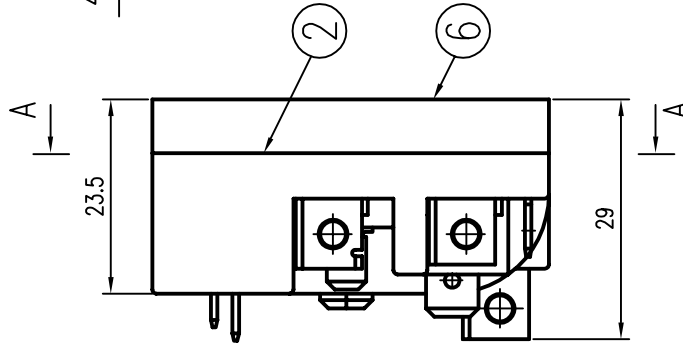
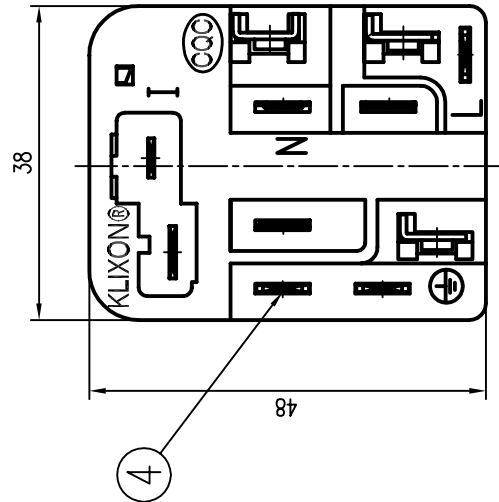
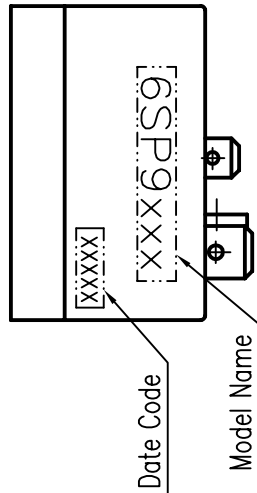
| No. | PART NAME | MATERIAL | DESCRIPTION |
|-----|------------------------|----------------------------------|---------------------------------|
| 9 | Pin connector | Stainless Steel | |
| 8 | Clamp | Stainless Steel | |
| 7 | Base | PPS, Vyrograss, PBT or Phenol | UL 94-V0 |
| 6 | PTC element | BaTiO 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 | | |
| No. | PART NAME | MATERIAL | DESCRIPTION |

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

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

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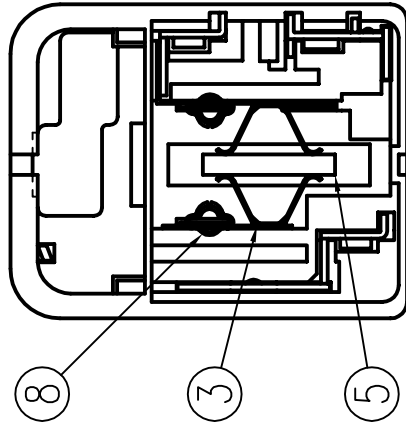
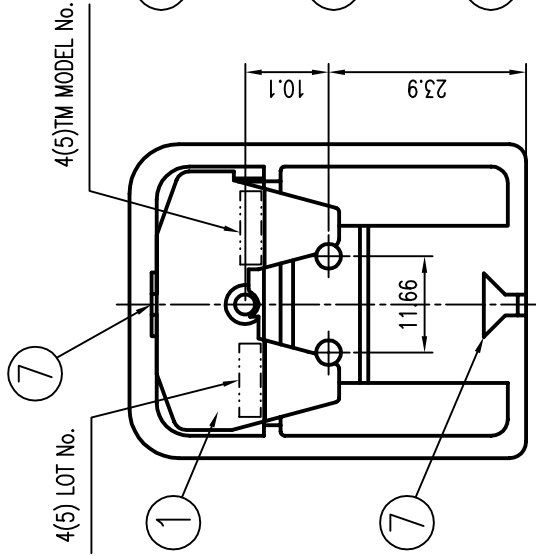
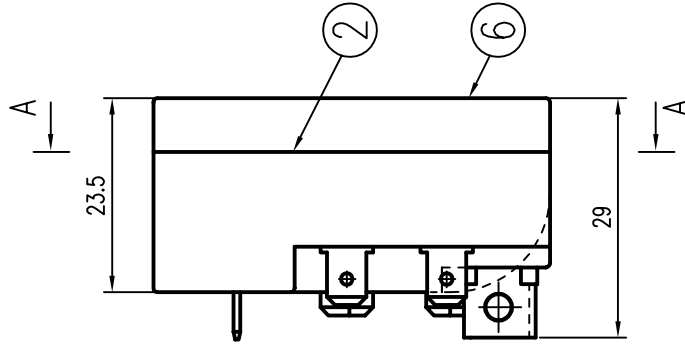
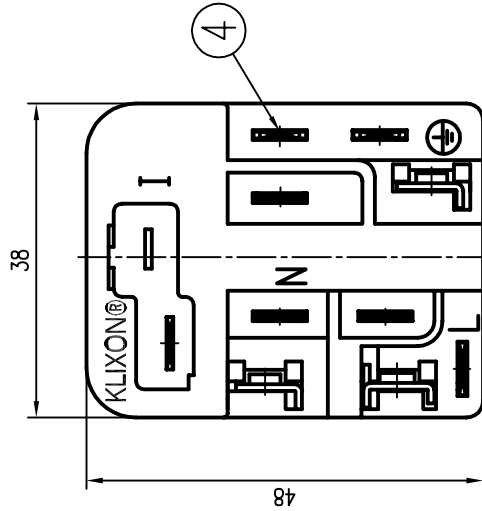
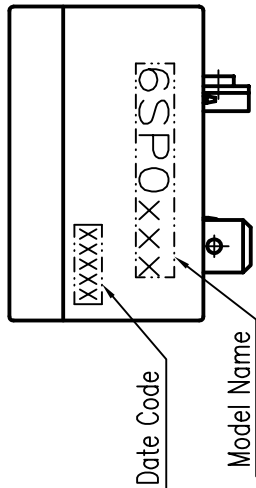
A-A

| 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)TM motor protector | | |
| No. | PART NAME | M A T E R I A L | DESCRIPTION |

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TITLE: 6SP9xxx Physical Dwg
SCALE: FREE

Nominal dimensions are shown for reference purpose only.



A-A

| 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)™ motor protector | | |
| No. | PART NAME | MATERIAL | DESCRIPTION |

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TITLE

6SP0xxx Physical Dwg

SCALE

FREE