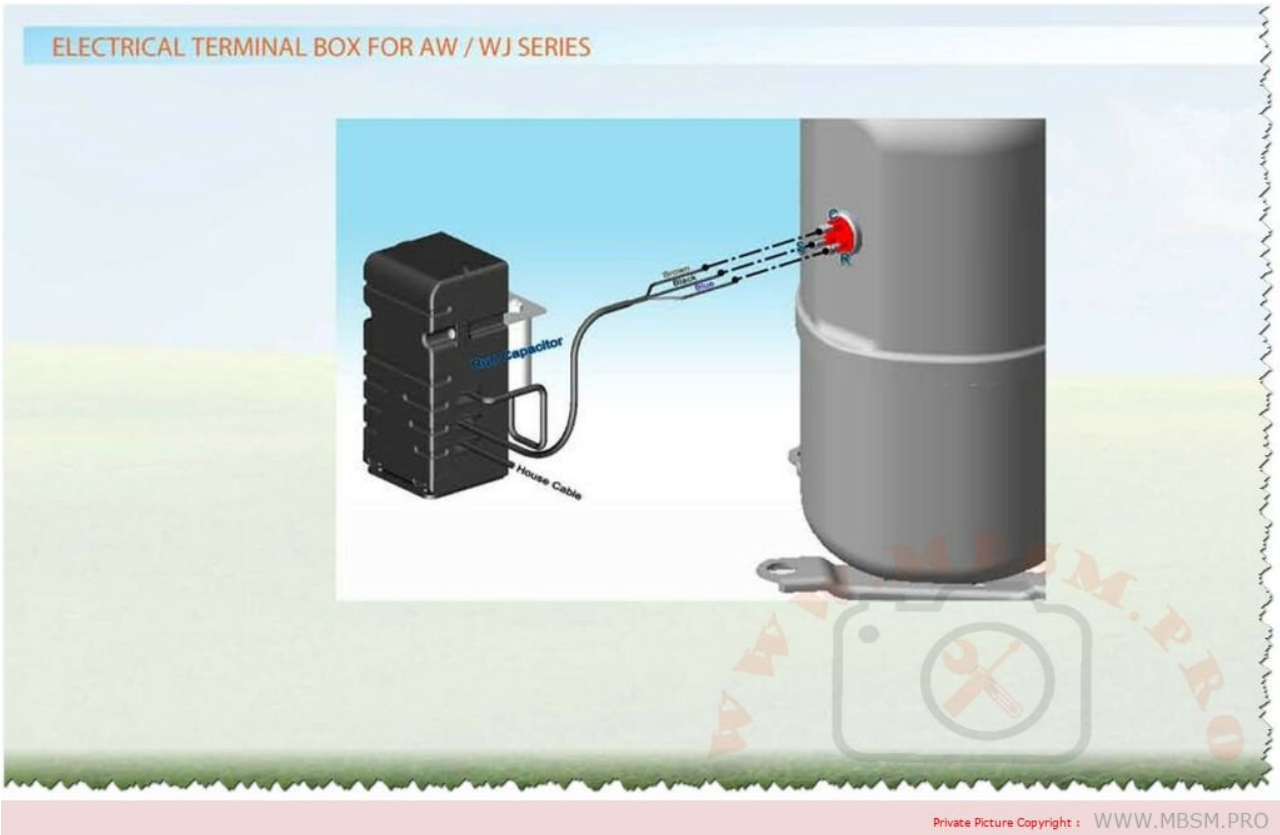


# Mbsm.pro, Type of Compressor, csr, psc, pscr, cscr, rsir

Category: compressor  
written by [www.mbsm.pro](http://www.mbsm.pro) | 27 January 2024

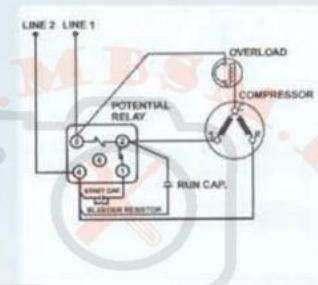
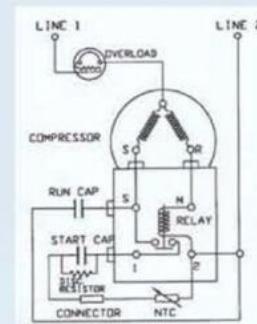


Here is a table summarizing the types of compressors mentioned in the question:

Type of Compressor	Description
CSR (Capacitor Start, Relay)	Uses a start capacitor and a relay to provide initial torque for starting the compressor motor
PSC (Permanent Split Capacitor)	Uses a single capacitor to provide both start and run torque for the compressor motor
PSCR (Permanent Split Capacitor with Relay)	Similar to a PSC compressor, but also uses a relay to provide additional starting torque when needed
CSCR (Capacitor Start, Capacitor Run)	Uses two capacitors, one for starting and one for running the compressor motor
RSIR (Refrigerant-cooled, Semi-Hermetic, Internal Motor, Reciprocating)	A semi-hermetic design with a motor and compressor enclosed in the same housing, commonly used in commercial refrigeration systems

### CSR: Capacitor Start Capacitor Run

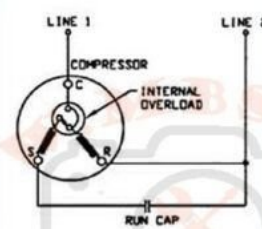
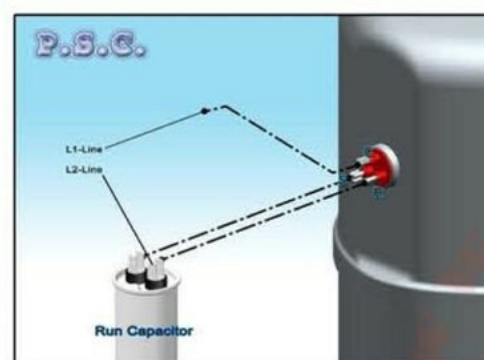
This motor arrangement uses a start capacitor added to a PSC circuit. The high starting torque is suitable for unequalized systems with capillary tube or expansion valve, maintaining the same efficiency of a PSC motor.



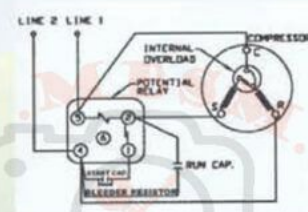
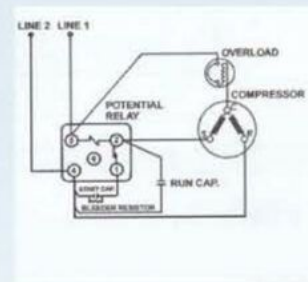
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### PSC: Permanent Split Capacitor

A run capacitor in series with the start winding produces a higher efficiency (EER) in comparison to a RSIR motor. They have a normal starting torque and are designed for capillary tube control devices, with equalized pressures.



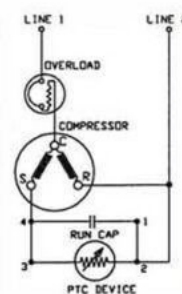
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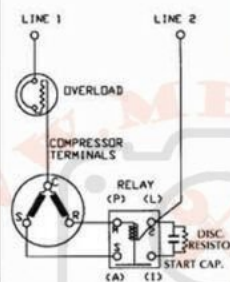
### RSCR: Resistance Start Capacitor Run

The motors have a PTC starting torque and a run capacitor. Their functioning is similar to the PSC motor. These compressors have a normal starting torque.



### CSIR: Capacitor Start Induction Run

The motors have a high starting torque, using an electrolytic starting capacitor. Recommended for applications with capillary tube or expansion valve systems.



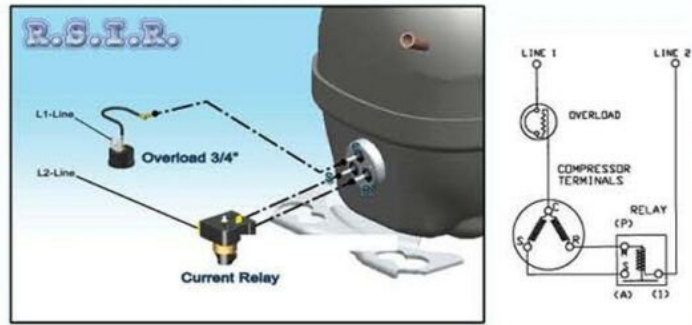
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## RSIR: Resistance Start Induction Run

RSIR motor with current relay:

The motors have a normal starting torque and are designed for completely self-equalizing capillary tube.



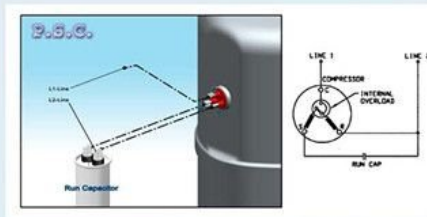
RSIR motor with PTC relay:

Motor functioning is similar to the RSIR with current relay, except that the current relay is replaced by a PTC relay.



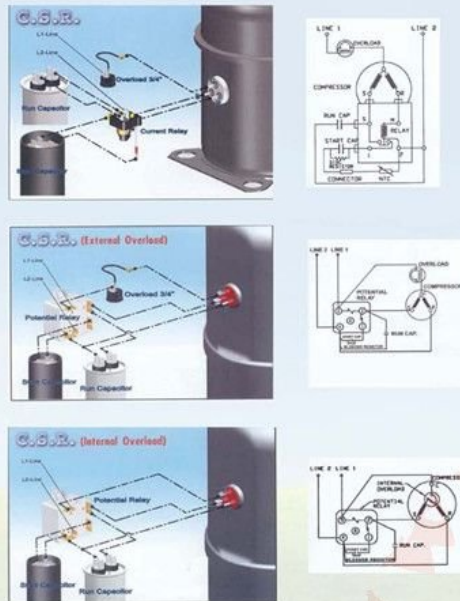
### PSC: Permanent Split Capacitor

A run capacitor in series with the start winding produces a higher efficiency (EER) in comparison to a RSIR motor. They have a normal starting torque and are designed for capillary tube control devices, with equalized pressures.



### CSR: Capacitor Start Capacitor Run

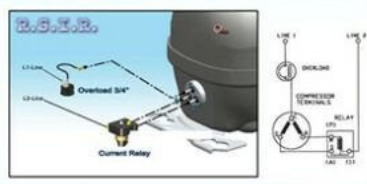
This motor arrangement uses a start capacitor added to a PSC circuit. The high starting torque is suitable for unequalized systems with capillary tube or expansion valve, maintaining the same efficiency of a PSC motor.



## MOTOR TYPE / WIRING DIAGRAM

### RSIR: Resistance Start Induction Run

RSIR motor with current relay:  
The motors have a normal starting torque and are designed for completely self-equalizing capillary tube.

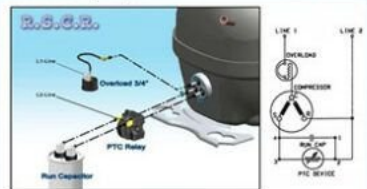


RSIR motor with PTC relay:  
Motor functioning is similar to the RSIR with current relay, except that the current relay is replaced by a PTC relay.



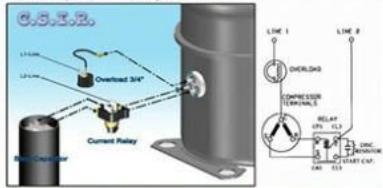
### RSCR: Resistance Start Capacitor Run

The motors have a PTC starting torque and a run capacitor. Their functioning is similar to the PSC motor. These compressors have a normal starting torque.



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## ELECTRICAL TERMINAL BOX FOR AW / WJ SERIES

