

COPELAND DISCUS COMPRESSOR

Supermarket refrigeration contractor relies on CoreSense Protection



Customer

Premier Refrigeration, a contractor servicing supermarkets in Detroit, Michigan.

Result

- Two potential compressor failures averted within weeks of startup
- \$5000 repair bill avoided with no loss of product
- Intermittent rack problems that would be impossible to detect are quickly diagnosed

Application

Parallel refrigeration systems with Copeland Discus compressors

Challenge

Ron Kowalski, President of Premier Refrigeration Co. is a firm believer that refrigeration problems can be avoided with regular maintenance and proper diagnostics. His customers count on him to keep their equipment running without fail. When one major supermarket customer was ready to remodel, Ron looked for a solution that provided advanced compressor protection and would allow his technicians to quickly diagnose any problems.

“ We have found CoreSense Protection very useful in the early warning of system problems which if not attended to could lead to compressor failure and possibly product damage. ”

Ronald D. Kowalski
Premier Refrigeration Co.

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Solution

Premier Refrigeration chose Copeland Discus compressors with CoreSense Protection and within just a few weeks realized the benefits of advanced protection. After installation, the CoreSense module issued a warning for one of the 25 horsepower Discus compressors.

The technician discovered that one of the contactor points was beginning to fail and was causing a momentary loss of a phase to the compressor. If this single-phasing was not addressed quickly the compressor could have possibly failed. No other safety would have detected this situation until a bigger problem occurred.

At a later date on the same system, the CoreSense Protection module alerted the contractor to another momentary, intermittent rack problem by issuing a high motor temperature alarm with a low oil warning notice. This problem would have gone undetected without the advanced protection. The contractor was able to correct the simple problem before it grew into a major failure.

By using the Copeland Discus compressor as a sensor, CoreSense Protection monitors and interprets system and electrical information within the compressor, and can shut the compressor down before damage occurs. Copeland Discus with CoreSense Protection alerts technicians to the most serious faults first so they can accurately and rapidly correct problems and prevent catastrophic compressor failures that could suddenly generate product spoilage.



CoreSense™ Protection for Copeland Discus® Compressors

Status Codes	Flashes	Condition
● GREEN – Power On	1	Oil Pressure
⊠ GREEN – Warning	2	Motor Protection Trip
⊠ YELLOW – Trip	3	Discharge Temperature
⊠ RED – Lockout	4	Current Sensor Fault
	5	Communication Error

RESET ↓

CoreSense Protection Features

- Oil Protection
- Motor Protection
- Low Oil Pressure Warning
- Manual Reset
- Compressor “Jog” Feature
- External Alarm Relay Contact
- Oil Trip Notification
- Motor Trip Notification (4D/6D Only)
- Remote Reset
- Compressor Proofing
- Asset Information
- Optional Feature – Discharge Line Temp Protection

To learn more, visit [copeland.com](https://www.copeland.com)

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