

POWER EQUIPMENT

Sentinel Series™ ALFEC

Airfield Lighting Field Electrical Center (ALFEC) for Remote Locations

The *Sentinel Series*™ ALFEC is a pre-engineered electrical vault designed specifically for small general aviation or remote arctic airports. The ALFEC comes complete with all the power and control equipment pre-installed and tested prior to shipping to site. Simply connect incoming power cables and airfield lighting field cables and the airfield can be operational the same day. Since the building is compact, it is ideal for shipping by truck, ocean freight or cargo aircraft to remote communities, oil fields, mining complexes, or military installations.

Sentinel Series™ Remote Access capability allows the airfield equipment to be securely monitored using dial-up, internet or wireless communications. Refer to descriptive bulletin LAS-DB-036 for complete details.

Construction Features

The building is constructed on a self supporting welded steel skid frame base. The floor is made of 1/4" checkerplate, continuously welded and painted with non-slip paint. Exterior walls are covered with prepainted exterior steel siding. Interior walls and ceiling are covered with pre-painted wall panels. The building walls, ceiling and floor are thermally insulated up to RSI 7.0 (R40) to meet extreme arctic or tropical climates. An insulated man-door provides access to the building and is large enough to allow removal or addition of new equipment. The door incorporates pressed steel frames, with thermal break, arctic weatherstripping, door hold backs, lockable handles and panic hardware.

Thermostatically controlled heating and ventilation systems with weatherhoods, intake filters and automatic louvres are provided to ensure reliable operation of the equipment under ambient weather conditions.

The building is provided complete with all electrical equipment including incoming service, electrical panelboard, interior and exterior lighting, receptacles, emergency lighting and obstruction lights. The ALFEC includes all the power and control equipment required for the airfield, including constant current regulators (CCR), non-regulated feeders, circuit selectors, pilot controlled radio control (ARCAL) and *Sentinel Series*™ remote monitoring and control systems.

Fire alarm systems can be provided complete with smoke detectors, local and remote annunciation and Novac-1230 or FM200 fire suppression systems.



Fig. 1 Sentinel ALFEC with removable tow-bar attached to skid frame, painted Sapphire (Arctic Airports) Blue.

Benefits

The ALFEC is supplied completely factory assembled providing the following advantages:

- Reduced time and associated costs for engineering design and approval process.
- Available for incoming voltages from 208 volts to 240 volts, 50/60 hertz.
- Compact design reduces heating, ventilating and maintenance costs.
- Low profile permits locating the ALFEC close to the runway, reducing cable costs while minimizing obstruction view to pilots.
- Self supporting base allows mounting on compact gravel, concrete pad, wood sleepers or caissons. Base is provided with skid mounts suitable for dragging or towing to final location.
- Reduced field installation time. Arrival at site to completed changeover in only a few days.
- Factory assembly provides on schedule delivery (not subject to weather conditions or site delays).
- Factory tested to provide high system quality and reliability. Customer may witness testing ensuring all items are approved prior to arrival at site.
- Single source responsibility providing integrated design, procurement, fabrication and testing.
- Minimal site logistics and coordination.

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Ordering Code

	RFEC - X X X X X XX
Type RFEC – Sentinel Series ALFEC – 8'x10'x8.5'h	●
Incoming Service Entrance A = 200 A Fused Disconnect Switch B = 200 A Main Breaker	●
Input Voltage 1 = 208 Vac, 60 Hz, 3 phase 2 = 240 Vac, 60 Hz, 1 phase 3 = other (specify)	●
Airfield Lighting CCR Type A = Spirit Thyristor CCR B = Spirit Ferro CCR	●
Sentinel Control Options 1 = ARCAL (L-854 Radio Only) 2 = ARCAL + Control Panel (remote) 3 = ARCAL + Control Panel (ALFEC) 4 = ARCAL + Control Panel (remote + ALFEC)	●
Sentinel Remote Monitoring A = None B = Telephone Line C = Internet D = Cell Network E = Satellite	●
Options (Select as many as required) 01 = Utility Meter Base (externally Mounted) 02 = Service Entrance Mast 03 = TVSS Surge Protection 04 = Obstruction Light 05 = Workbench with Storage Cabinet 06 = Fire Alarm Panel 07 = Fire Suppression System (FM -200 or Novec-1230)	●
Legend CSRL-X = L-847 Circuit Selector (where X=# of circuits: 2 or 4) NRCL-X = Non-regulated Control Cell with 'X' 600V contactors (2,4,6,8)	

Standby or Prime Power

Since remote sites are generally powered from their own central generating stations, a standby diesel generator is not included with the *Sentinel™* ALFEC. For sites requiring standby or prime power for the airfield, our *Spirit* or *Freedom Series™* ALFECs include complete diesel generator, automatic transfer and fuel systems.

Custom Solutions

For any special requirements, please give us a call. Chances are we already have a solution. If not, we would be pleased to work with you to develop a site specific product or customized ALFEC solution.



Fig. 2 Sentinel ALFEC with Liberty wall mounted CCRs, non-regulated panel, heating and ventilation.

Airfield Lighting CCRs and Equipment Specify options on product data sheets)			
Qty	CCR Ratings	Qty	Other
	1 KW		CSRL-X
	2 KW		NRCL-X
	4 KW		PAPI Heater
	7.5 KW		
	10 KW		