

Light Support Power Systems FTC3R & 3FTC3R

Outdoor fast transfer emergency lighting Inverter system 3KVA – 8KVA



Features

- 98% efficient @ full load
- PWM/IGBT technology
- Self-testing/Self-diagnostic
- Standard input circuit breaker
- Standard internal bypass switch
- RS232 communication port
- Standard seismic zone 4 brackets
- Standard summary dry contacts
- Automatic event and alarm log
- NEMA 3R cabinet for outdoors
- 90 min. standard run time

- Generator compatibility
- Custom voltages available
- Automatic event, test and alarm log
- LCD display
- One size cabinet
- Maintenance free standard 5 year
- Temperature controlled cooling fans



Electrical characteristics and dimensions⁴ (data provided for standard lead calcium batteries)^{1, 4}

Power rating ¹ kVA=kW	Effic. at full load	Heat loss in normal mode		Batt. VDC	Batt. A	No. of Batt. ²	UPS cabinet dimensions			Batt. cab. weight lbs (empty)	UPS cab. weight lbs	Batt. weight lbs	Total system weight lbs
		BTU/HR	BTU				W" ³	H"	D"				
3 (1PH)	98	255	120	120	37	10	48	76	30	N/A	535	888	1633
4 (1PH)	98	340	144	144	40	12	48	76	30	N/A	535	1110	1855
5 (1PH)	98	408	180	180	40	15	48	76	30	N/A	535	1480	2247
6.5 (1PH)	98	544	240	240	39	20	48	76	30	N/A	639	1776	2835
8 (1PH)	98	680	144	144	82	24	48	76	30	N/A	639	2220	3279
4 (3PH)	98	326	144	144	39	12	48	76	30	210	639	2960	4063
5 (3PH)	98	408	180	180	39	15	48	76	30	232	1250	4440	6390
6.5 (3PH)	98	544	240	240	39	20	48	76	30	420	1250	6080	8630
8 (3PH)	98	680	144	144	81	24	48	76	30	420	1250	7400	10150

¹ Factory installed floor mount brackets; add 2.5" to each side (total 53")

² Standard batteries are 5 year life expectancy.

Batteries are installed in the same cabinet with electronics

³ UL rated for 90 min. run time for temperatures: 50°F to 104°F (10°C to 40°C) or -4°F to 104°F (-20°C to 40°C) with optional heater

⁴ NEMA type 3R, freestanding, two-door powder coat cold rolled steel cabinet standard. Stainless steel enclosure is optional.

Ordering format

System type	Battery type	Input voltage ³	VA/W rating ⁵	Output voltage ³	Run time ²	Input breaker	RS232 port	Internal bypass switch	Output breakers ⁴	Options ⁷	
FTC3R- single phase	SC= Sealed	120, 1PH	L- 3000	120	90	ICB	RS232	MBYP	OCBxxxx- No trip alarm OCAxxxx- With trip alarm	10Y- 10 yr sealed batteries 12HR- 12 hr fast recharge NOFF- Normally off output ⁶ EMBP- External bypass switch ⁵ RMP- Remote metering panel RSAP- Remote summary alarm panel	HTR- Heater INVON- Inverter on dry contacts MOD- External modem FAX- Fax modem BPR- Bypass relays SS- Stainless steel enclosure
	Lead-	208, 1PH	M- 3750	208							
	Calcium	240, 1PH	P- 5000	277							
3FTC3R- 3 phase		120/208, 3PH 277/480, 3PH	R- 6000 S- 8000	120/208 277/480							

Example: FTC3R-SC277P277-90-ICB-RS232-MBYP-OCB1020-10Y

¹ 1PH are input voltages available for 1 phase systems. 3PH are input voltages available for 3phase systems.

² Other run times available

³ 1PH are input voltages available for 1 phase systems. 3PH are input voltages available for 3phase systems.

⁴ Max. 14 unsupervised single pole positions or 8 with trip alarm. For more output breakers please consult factory. See page 179 for output breakers option details.

⁵ Not available in 3 phase version

⁶ Normally Off loads cannot exceed 20% of total KVA rating with any combination of H.I.D loads

⁷ See page 179 for options description. Summary alarm dry contacts and seismic brackets are standard.

Light Support Power Systems Options

-OCB	12	20				
Trip Alarm	Number of Circuit Breakers	Breaker Rating (Amps)	Number of poles	Breaker Voltage		Operation Mode
OCB - No Breaker Trip Alarm	Combination of 1 pole, 2 pole and 3 pole breakers available.			Blank - matches system output voltage		Blank: Normally-On
OCA - With Breaker Trip Alarm	*For max. number of circuit breakers available please consult factory	*Various ratings available	Blank - 1 pole	-120VAC	-208VAC	-NOFF: Normally-Off
			-2P - 2 poles	-240VAC	-277VAC	
			-3P - 3poles	-480VAC		

Distribution circuit breakers are for output load protection. Protection for the normally on and/or for the normally off loads. All circuit breakers are rated for 10,000 AIC. If ordered, an audible and visual alarm activates when an output distribution circuit breaker is open or has tripped.

(-20YR) 20 year Sealed Lead Calcium Batteries

Maintenance free battery requires no addition of water over the life of the battery. The battery cells are housed in protective, modular steel trays. Life expectancy is designed for 20-years at 77°F (25°C).

(-12HR) 12 hourfast recharge

Battery charger upgrade option which decreases the time required to return a fully discharged battery to the fully charged state. The normal 24 hour recharge cycle is reduced to a 12 hour period.

(-MBYP) Internal maintenance bypass switch

Internally mounted device permits maintenance personnel to easily bypass the protected equipment directly to the AC utility power. The manual make before break switch isolates the system to perform routine maintenance or servicing without interruption of utility power to the connected load.

(-EMBP) External Maintenance bypass switch

The external maintenance bypass switch is mounted in a 20"H x 16"W x 9"D NEMA 1 separate enclosure, used to completely isolate the inverter system from the connected load and AC utility input. This option allows the system to be safely powered down for maintenance or service. The option may not be used on systems with more than one single pole output circuit breaker which must be sized for the total system output current.

(-RMP) Remote meter panel

The panel allows monitoring of parameters and control from remote locations up to 150 feet away from the inverter system. Also, the remote panel provides a complete touch pad interface allowing the user to monitor, control and program the inverter system.

(-RSAP) Remote summary alarm panel

Wall mountable box provides visual and audible alarms with silent switch. The panel consists of LED indicators and built in audible alarm and may be located up to 1,000 feet away from the inverter system.

(-DCS) Summary alarm dry contacts

Form C dry contacts for remote monitoring purposes. Rated at 5 amps max. (250VAC/30VDC), the contacts will change state when any of the following alarms: High/Low Battery Charger Voltage, High/Low AC Input Voltage, Near Low Battery Voltage, Low Battery Voltage, Load Reduction Fault, High Ambient Temperature, Inverter Fault, Output Fault, Output Overload or Optional circuit breaker trip alarms, occurs. (-INVON) Inverter On Dry Contacts

(-INVON) Inverter on drycontacts

Form C dry contacts that will change state when the system transfers to battery operation

(-VTD) Time delay, 15 minutes (for normally off circuits)

After a return of AC utility power, delays retransfer of the inverter for up to 15 min. and continues to supply emergency power to the normally off circuits.

(-NOFF) Normally Off output

This output circuit is dedicated for the emergency only equipment. Emergency only equipment operates during power outages and

when the system is on battery back up. This option leaves the normally off load circuits off during normal utility power conditions. A 1-pole circuit breaker is provided. For 3 phase systems, 3 pole normally off circuits are available as well.

(-MOD) External modem

External modem device is designed to boost the signal level of the RS-232 diagnostic interface to remote monitoring locations located more than 100 feet away from the system.

(-FAX) Internal fax modem

The internal fax modem enables the system to send a fax automatically to several pre-programmed numbers when one of the following conditions occurs: utility failure, output failure or any alarm. The Fax Modem option requires a user supplied dedicated phone line.

(-BPR) Bypass relays

Internal bypass relays will allow overriding circuits that can be switched on/off, so in case of a power failure the emergency circuits will be supplied from the inverter system whatever the position of the switching device. Please consult factory for more details.

(-SEIS) Seismic mounting kit

The seismic mounting kit option is designed to prevent system movement during seismic events. Heavy duty brackets are provided to secure system cabinetry to floor surfaces. Meets Zone 4 requirements.

(-ZONEM) Zone monitoring

Allows voltage monitoring of different circuits than the standard AC utility input. When the voltage of one of these circuits drops, the inverter system will go into battery back-up operation mode. Number and voltage of the monitored circuits to be specified.

(-RS232) Diagnostic interface

A microprocessor-based data acquisition system designed to monitor all the system parameters remotely. Monitors alarm log, event log and automatic test log. User can command the system to perform a battery test and review all system parameters. Access is through a DB9 connector and transmits at 9600 baud.

(-BATM) Battery cycle warranty monitor

Device providing battery monitoring at string level or cell level. Please consult factory for more details.