

Three-Phase Systems - 10KVA to 125KVA

INVERTERS



FEATURES

- AC output provides full lumen output for emergency lighting loads in commercial or industrial applications
- Compatible with any lighting load including incandescent, HID, fluorescent and LED lamps
- Painted steel enclosure and double conversion online operation
- Maintenance-free batteries with fully automatic solid state charger
- Form C contact closure points standard on all models
- 24 hour recharge time
- Temperature range: 20°C to 30°C (68°F to 86°F)
- OSHPD seismic qualification on 65 - 125KVA sizes
- UL 924 Listed

ORDERING INFORMATION



MODEL	INPUT VOLTAGE	INPUT CONDUCTOR	CAPACITY	OUTPUT VOLTAGE	OPTIONS ^{6,7}	FACTORY START-UPS (REQUIRED) ⁴
	208 ¹ 208VAC	3 3 Wire	10 10KVA/9KW	208 208VAC	A SNMP/Web Card	FST-1 Factory Start-Up 10 - 30kVA
	480 480VAC	4 ² 4 Wire	15 15KVA/13KW	480 ³ 480VAC	B SNMP/Web Card & Env. Sensor	FST-2 Factory Start-Up 40 - 80kVA
			20 20KVA/18KW		C Top Entry Cabinet	FST-3 Factory Start-Up > 80kVA
			30 30KVA/27KW		D SNMP Card & Top Entry Cabinet	
			40 40KVA/36KW		E SNMP Card, Env. Sensor & Top Entry Cabinet	
			50 50KVA/45KW			
			60 60KVA/54KW			
			65 65KVA/58KW			
			80 80KVA/72KW			
			100 100KVA/90KW			
			125 125KVA/112KW			

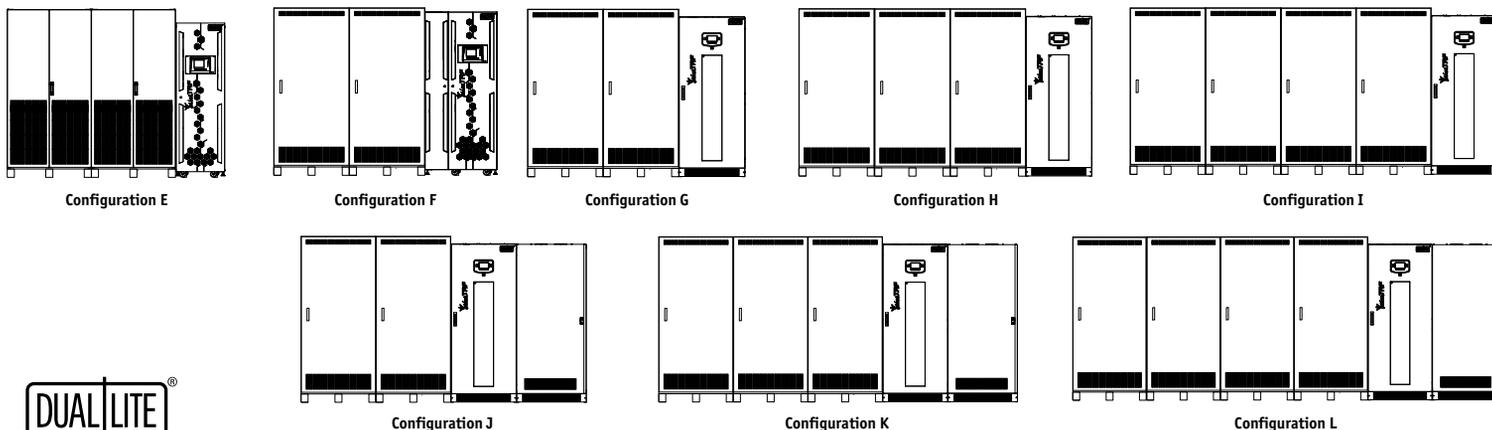
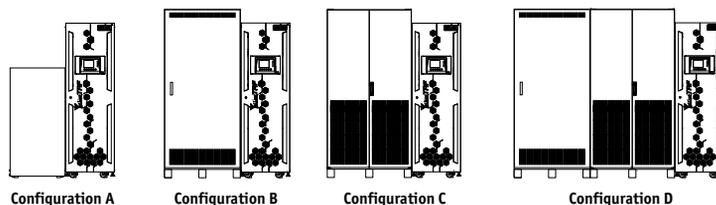
ACCESSORIES	
TRF-RSP-1	Remote Status Panel 10-60kVA
TRF-RSP-2	Remote Status Panel 65-125kVA
TRF-SFK-1	Seismic Mounting 10-40kVA
TRF-SFK-2	Seismic Mounting 50-60kVA

¹ Only available with 208VAC output voltage.
² Only available with 480VAC output voltage (all capacities), and with 208 VAC input voltage on 10KVA through 65KVA capacities
³ Only available with 480VAC input voltage.
⁴ Start-up must be performed by an Authorized Service Center within 6 months of shipment to maintain battery warranty.
⁵ Batteries must be connected to an energized charging circuit within 90 days from date of shipment or warranty is void.
⁶ Alternate run times and 50Hz models available on request; consult factory.
⁷ SNMP/web card: Internal SNMP Card allows inverter management across a LAN using any of the main network communication protocols. - TCP/IP, HTTP and network interface (SNMP).
 SNMP/Web Card & Env. Sensor: SNMP card with an environmental sensor module that senses temperature, humidity and smoke and displays it via SNMP.
 Top Entry Cabinet: Provides additional compartments to allow for top conduit entry.

ELECTRONICS

- Uninterruptible "no break" transfer
- Microprocessor controlled pulse width modulation (PWM) using IGBT technology
- Transient surge, LVD, short-circuit, current limiting, overload and brown-out protection
- Self-test diagnostic circuitry
- True sine wave output; optional runtime available
- Digital controls with graphic user interface with LED indicators and audible alarm system
- Load power factor range of 0.9 leading to 0.5 lagging without derating (may not exceed KVA rating)
- Internal power factor of 0.90 to yield KW rating

CABINET CONFIGURATIONS



Three Phase Central Lighting Inverters – 10KVA to 125KVA

SPECIFICATIONS

UPS Rating	AC Voltage			AC Current			Battery		Recommended OCPD			Mechanical Data							
	kVA/kW	Input (VAC)	Output (VAC)	Bypass (VAC)	Input Nom (A)	Input Max (A)	Output Nom (A)	Nom. (VDC)	Discharge (A)	Input	Output	DC	No. of Cab.	Cab. Config.	Width (in)	Depth (in)	Height (in)	Weight (lbs)	Heat Diss. (BTU/hr)
10/9	208V	208Y/120V	208V	208V	27.8	33.4	27.8	432	26.5	45	35	35	2	A	49.2	35.6	72.4	2,351	3200
10/9	480V	208Y/120V	208Y/120V	208/120V	27.1	32.6	27.8	432	26.5	40	35	35	2	A	49.2	35.6	72.4	2,171	2400
10/9	480V	208Y/120V	480V	480V	12.1	14.5	27.8	432	26.5	20	35	35	2	A	49.2	35.6	72.4	2,381	3200
10/9	480V	480Y/277V	480V	480V	12.2	14.7	12.0	432	26.9	20	15	35	2	A	49.2	35.6	72.4	2,481	3700
10/9	480Y/277V	480Y/277V	480Y/277V	480Y/277V	12.1	14.5	12.0	432	26.9	20	15	35	2	A	49.2	35.6	72.4	2,371	3400
15/13	208V	208Y/120V	208V	208V	41.7	50.1	41.6	432	39.8	70	60	50	2	B	59.1	34.5	78.7	3,439	4800
15/13	208Y/120V	208Y/120V	208Y/120V	208/120V	40.7	48.8	41.6	432	39.8	60	60	50	2	B	59.1	34.5	78.7	3,189	3500
15/13	480V	208Y/120V	480V	480V	18.1	21.7	41.6	432	39.8	30	60	50	2	B	59.1	34.5	78.7	3,439	4800
15/13	480V	480Y/277V	480V	480V	18.4	22.0	18.0	432	40.4	30	25	60	2	B	59.1	34.5	78.7	3,639	5600
15/13	480Y/277V	480Y/277V	480Y/277V	480Y/277V	18.2	21.8	18.0	432	40.4	30	25	60	2	B	59.1	34.5	78.7	3,589	5000
20/18	208V	208Y/120V	208V	208V	55.7	66.8	55.5	432	53.1	90	70	70	2	C	63.1	34.5	78.7	4,319	6400
20/18	208Y/120V	208Y/120V	208Y/120V	208/120V	54.3	65.1	55.5	432	53.1	80	70	70	2	C	63.1	34.5	78.7	4,089	4700
20/18	480V	208Y/120V	480V	480V	24.1	28.9	55.5	432	53.1	35	70	70	2	C	63.1	34.5	78.7	4,389	6400
20/18	480V	480Y/277V	480V	480V	24.5	29.4	24.1	432	53.9	40	30	70	2	C	63.1	34.5	78.7	4,619	7400
20/18	480Y/277V	480Y/277V	480Y/277V	480Y/277V	24.2	29.1	24.1	432	53.9	40	30	70	2	C	63.1	34.5	78.7	4,549	6700
30/27	208V	208Y/120V	208V	208V	83.5	100.2	83.3	432	79.6	125	110	100	3	D	99.1	34.5	78.7	6,509	9500
30/27	208Y/120V	208Y/120V	208Y/120V	208/120V	81.4	97.7	83.3	432	79.6	125	110	100	3	D	99.1	34.5	78.7	6,079	7000
30/27	480V	208Y/120V	480V	480V	36.2	43.4	83.3	432	79.6	60	110	100	3	D	99.1	34.5	78.7	6,509	9500
30/27	480V	480Y/277V	480V	480V	36.7	44.1	36.1	432	80.8	60	50	110	3	D	99.1	34.5	78.7	6,774	11100
30/27	480Y/277V	480Y/277V	480Y/277V	480Y/277V	36.4	43.6	36.1	432	80.8	60	50	110	3	D	99.1	34.5	78.7	6,609	10000
40/36	208V	208Y/120V	208V	208V	111.3	133.6	111.0	432	106.2	175	150	150	3	E	103.1	34.5	78.7	7,953	12700
40/36	208Y/120V	208Y/120V	208Y/120V	208/120V	108.5	130.2	111.0	432	106.2	175	150	150	3	E	103.1	34.5	78.7	7,519	9300
40/36	480V	208Y/120V	480V	480V	48.2	57.9	111.0	432	106.2	70	150	150	3	E	103.1	34.5	78.7	7,969	12700
40/36	480V	480Y/277V	480V	480V	49.0	58.8	48.1	432	107.8	80	70	150	3	E	103.1	34.5	78.7	8,239	14700
40/36	480Y/277V	480Y/277V	480Y/277V	480Y/277V	48.5	58.2	48.1	432	107.8	80	70	150	3	E	103.1	34.5	78.7	8,059	13300
50/45	208V	208Y/120V	208V	208V	147.1	176.5	138.8	432	132.7	225	175	175	3	F	106.4	34.3	78.7	9,621	25500
50/45	208Y/120V	208Y/120V	208Y/120V	208/120V	143.4	172.0	138.8	432	132.7	225	175	175	3	F	106.4	34.3	78.7	9,041	21000
50/45	480V	208Y/120V	480V	480V	63.7	76.5	138.8	432	132.7	100	175	175	3	F	106.4	34.3	78.7	9,451	25500
50/45	480V	480Y/277V	480V	480V	65.4	78.4	60.1	432	136.1	100	80	175	3	F	106.4	34.3	78.7	9,861	30100
50/45	480Y/277V	480Y/277V	480Y/277V	480Y/277V	65.4	78.4	60.1	432	136.1	100	80	175	3	F	106.4	34.3	78.7	9,861	30100
60/54	208V	208Y/120V	208V	208V	170.6	204.8	166.5	432	159.3	250	225	200	3	F	106.4	34.3	78.7	9,599	23500
60/54	208Y/120V	208Y/120V	208Y/120V	208/120V	166.4	199.7	166.5	432	159.3	250	225	200	3	F	106.4	34.3	78.7	9,041	18300
60/54	480V	208Y/120V	480V	480V	73.9	88.7	166.5	432	159.3	110	225	200	3	F	106.4	34.3	78.7	9,601	23500
60/54	480V	480Y/277V	480V	480V	75.1	90.1	72.2	432	161.7	110	100	225	3	F	106.4	34.3	78.7	10,167	26600
60/54	480Y/277V	480Y/277V	480Y/277V	480Y/277V	74.3	89.2	72.2	432	161.7	110	100	225	3	F	106.4	34.3	78.7	10,173	24500
65/58	208V	208Y/120V	208V	208V	180.5	209.0	180.4	480	159.5	300	225	160	4	J	137	33.5	78.7	12,539	15683
65/58	480V	480Y/277V	480V	480V	78.2	89.0	78.2	480	159.5	125	125	160	4	J	137	33.5	78.7	11,909	15833
65/58	480V	208Y/120V	480V	480V	78.2	89.0	180.4	480	159.5	125	225	160	4	J	137	33.5	78.7	11,909	15683
65/58	480Y/277V	480Y/277V	480Y/277V	480Y/277V	78.2	89.0	78.2	480	159.5	125	100	160	3	G	103.6	33.5	78.7	10,439	15033
80/72	208V	208Y/120V	208V	208V	222.2	256.0	222.1	480	196.4	350	300	200	5	K	173	33.5	78.7	17,009	19300
80/72	480V	480Y/277V	480V	480V	96.3	109.0	96.2	480	196.4	150	150	200	5	K	173	33.5	78.7	16,379	19300
80/72	480V	208Y/120V	480V	480V	96.3	109.0	222.1	480	196.4	150	300	200	5	K	173	33.5	78.7	16,739	19300
80/72	480Y/277V	480Y/277V	480Y/277V	480Y/277V	96.3	109.0	96.2	480	196.4	150	125	200	4	H	139.6	33.5	78.7	14,909	18500
100/90	208V	208Y/120V	208V	208V	277.6	317.0	277.6	480	235.8	400	350	250	5	K	173	33.5	78.7	17,119	24120
100/90	480V	480Y/277V	480V	480V	120.3	136.0	120.3	480	235.8	175	175	250	5	K	173	33.5	78.7	16,489	24120
100/90	480V	208Y/120V	480V	480V	120.3	136.0	277.6	480	235.8	175	350	250	5	K	173	33.5	78.7	16,489	24120
100/90	480Y/277V	480Y/277V	480Y/277V	480Y/277V	120.3	136.0	120.3	480	235.8	175	150	250	4	H	139.6	33.5	78.7	15,019	23120
125/112	208V	208Y/120V	208V	208V	347.1	360.0	347.0	480	294.8	450	450	300	6	L	209	33.5	78.7	21,722	30150
125/112	480V	480Y/277V	480V	480V	150.4	160.0	150.4	480	294.8	200	200	300	6	L	209	33.5	78.7	21,092	30150
125/112	480V	208Y/120V	480V	480V	150.4	160.0	347.0	480	294.8	200	450	300	6	L	209	33.5	78.7	21,092	30150
125/112	480Y/277V	480Y/277V	480Y/277V	480Y/277V	150.4	160.0	150.4	480	294.8	200	200	300	5	I	175.6	33.5	78.7	19,622	28900

NOTES FOR SITE PLANNING DATA:

- Input and bypass cables must be run in separate conduit from output cables.
- Minimum-sized grounding conductors to be per NEC 250-122. Parity-sized ground conductors are recommended. Neutral conductors to be sized for full capacity per NEC 310-15(B)(4) References are per NEC 2008.
- Wiring requirements:
AC Input: 3-phase, 3-wire plus ground or 3-phase, 4-wire plus ground
AC Output: 3-phase, 3-wire plus ground or 3-phase, 4-wire plus ground
- All wiring is to be in accordance with national and local electrical codes.
- Minimum cabinet access clearance: 3 ft. (0.9m) front, ; 18" (457mm) overhead for up to 65kVA systems and 24" (610mm) overhead for >65kVA systems; 8" (203mm) rear for up to 65kVA systems and 24" (610mm) rear for >65kVA systems.
- Top or bottom cable entry through removable access plates. Punch plate to suit conduit size then replace.
- Control wiring and power wiring must be run in separate conduit.

- Dimensions are system dimensions including UPS, battery cabinets and transformer cabinets (if any).; Transformer cabinets are front access
- Weights are system weights including UPS, battery cabinets and transformer cabinets (if any).; Transformer cabinets are front access.
- Heat dissipation includes UPS, battery and transformer cabinet.
- Recommended AC input external overcurrent protection is based on 80% rated devices and maximum input current limit settings.

ADDITIONAL NOTES:

- If site configuration includes a back-up emergency generator, it is recommended that the engine generator set be properly sized and equipped for a UPS application. Generator options would typically include an isochronous governor (generator frequency regulation) and a UPS compatible regulator (generator voltage regulation). Consult generator manufacturer for required generator options and sizing.

