

**BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO**

In the matter of the application of The	)	
Toledo Edison Company and The	)	
University of Toledo to Commit Energy	)	Case No. 13-0096-EL-EEC
Efficiency/Peak Demand Reduction	)	
Programs	)	

NOTICE OF FILING AMENDMENT TO JOINT APPLICATION

The Toledo Edison Company ("Toledo Edison") hereby provides notice of its filing of an amendments to the Application to Commit Energy Efficiency/Peak Demand Reduction Program ("Application") that it filed jointly with the University of Toledo on February 13, 2013. Toledo Edison and the University of Toledo now amend the Application to include the attached supporting documentation for Project 1 listed in the Application.

Respectfully submitted,

/s/ Lindsey Sacher

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ATTORNEYS FOR TOLEDO EDISON
COMPANY

Attachment C	
VFD Savings	
Pump Motor HP Controlled	70.0
Pump Motor Min Eff	91.0
Pump Motor Hours	5520.0
Fan Motor HP Controlled	115.0
Fan Motor Min Eff	91.0
Fan Motor Hours	2790.0
Load Factor	0.8
Conversion Factor	0.746
Savings Factor	0.19
Baseline kWH	463832
New kWH	375704
Annual Usage Savings	88128

Current/Voltage Specifications

Table 7. 230- and 460-Volt NEMA Type-1 chassis standard ratings table.

FlowSaver Model No.	Use With ASD Model No. VT130	Rated KVA	Motor HP/kW	Input Voltage 3-Ph 50/60 ± 2 Hz	Output Voltage 3-Ph Variable Frequency	Output Current 100% Continuous	Overload Current 110% for 60 Secs.
Q92015	N/A	1.5	1.0/0.75	200 – 240 VAC ($\pm 10\%$)	Input Voltage Level (Max.)	4.8 A	5.3 A
Q92025		2.5	2.0/1.5			7.8 A	8.6 A
Q92035		3.5	3.0/2.2			11.0 A	12.1 A
Q92055		5.5	5.0/3.7			17.5 A	19.3 A
Q92080		8.0	7.5/5.6			25.3 A	27.8 A
Q92110		11.0	10.0/7.5			32.2 A	35.4 A
Q92160		16.0	15.0/11.2			48.3 A	53.1 A
Q92220		22.0	20.0/14.9			62.1 A	68.3 A
Q92270		27.0	25.0/18.5			78.2 A	86.0 A
Q92330		33.0	30/22.4			92.0 A	101.2 A
Q92400		40.0	40/29.8			120.0 A	132.0 A
BYP2-100	Q9U2330	28.0	30/22.4			92.0 A	101.2 A
BYP2-125	Q9U2400	37.3	40/29.8			120.0 A	132.0 A
Q94015	N/A	1.5	1.0/0.5	380 – 480 VAC ($\pm 10\%$)	Input Voltage Level (Max.)	2.1 A	2.3 A
Q94025		2.5	2.0/1.5			3.4 A	3.7 A
Q94035		3.5	3.0/2.2			4.8 A	5.3 A
Q94055		5.5	5.0/3.7			7.6 A	8.4 A
Q94080		8.0	7.5/4.0			11.0 A	12.1 A
Q94110		11.0	10.0/5.5			14.0 A	15.4 A
Q94160		16.0	15.0/7.5			21.0 A	23.1 A
Q94220		22.0	20.0/11.0			27.0 A	29.7 A
Q94270		27.0	25.0/15.0			34.0 A	37.4 A
Q94330		33.0	30.0/18.5			40.0 A	44.0 A
Q94400		40.0	40.0/22.0			52.0 A	57.2 A
Q94500		50.0	50/30.0			65.0 A	71.5 A
Q94600		60.0	60/37.0			77.0 A	84.7 A

Also VT130Q9U4160

380 – 480 VAC ($\pm 10\%$)

12.2 Outside dimensions and weight

■ Outside dimensions and weight

Voltage class	Applicable motor (kW)	Applicable motor (HP)	Inverter type	Dimensions (mm)								Drawing	Approx. weight (kg)											
				W	H	D	W1	H1	W2	H2	H3			H4										
200V	0.4	0.5	VFAS1-2004PL	130	230	152	114	220	-	-	-	-	A	3										
	0.75	1	VFAS1-2007PL																					
	1.5	2	VFAS1-2015PL																					
	2.2	3	VFAS1-2022PL																					
	3.7/4.0	5	VFAS1-2037PL	155	260	164	138	249	-	-	-	-	B	4										
	5.5	7.5	VFAS1-2055PL	175	295	164	158	283	-	-	-	-	C	5.5										
	7.5	10	VFAS1-2075PL	210	295	191	190	283	-	-	-	-	D	7.5										
	11	15	VFAS1-2110PM	230	400	191	210	386	-	-	-	-	E	14										
	15	20	VFAS1-2150PM																					
	18.5	25	VFAS1-2185PM																					
	22	30	VFAS1-2220PM																					
	30	40	VFAS1-2300PM	240	420	212	206	403	-	-	-	-	F	21										
	37	50	VFAS1-2370PM																					
	45	60	VFAS1-2450PM																					
55	75	VFAS1-2550P	310												680 (920)	370	250	650	320	75	150	30	J	59 (87)
75	100	VFAS1-2750P	350	782 (1022)	370	298	758	360	72	150	30	K	72 (103)											
400V	0.75	1	VFAS1-4007PL	130	230	152	114	220	-	-	-	-	A	3										
	1.5	2	VFAS1-4015PL																					
	2.2	3	VFAS1-4022PL																					
	3.7/4.0	5	VFAS1-4037PL												155	260	164	138	249	-	-	-	-	B
	5.5	7.5	VFAS1-4055PL	175	295	164	158	283	-	-	-	-	C	5.5										
	7.5	10	VFAS1-4075PL																					
	11	15	VFAS1-4110PL	210	295	191	190	283	-	-	-	-	D	8										
	15	20	VFAS1-4150PL	230	400	191	210	386	-	-	-	-	E	13										
	18.5	25	VFAS1-4185PL											16										
	22	30	VFAS1-4220PL											240	420	212	206	403	-	-	-	-	F	21
	30	40	VFAS1-4300PL											240	550	242	206	529	-	-	-	-	G	29
	37	50	VFAS1-4370PL																					
	45	60	VFAS1-4450PL																					
	55	75	VFAS1-4550PL	320	630	290	280	605	-	-	-	-	I											
	75	100	VFAS1-4750PL																					
	90	125	VFAS1-4900PC	310	(680 (920)	370	250	650	320	75	150	30	J	59 (89)										
	110	150	VFAS1-4110KPC	350	782 (1022)	370	298	758	360	72	150	30	K	74 (108)										
	132	200	VFAS1-4132KPC	330	950 (1190)	370	285	920	340	75	150	30	L	82 (118)										
	160	250	VFAS1-4160KPC	430	950 (1190)	370	350	920	440	75	150	30	M	104 (161)										
	200	300	VFAS1-4200KPC	585	950 (1190)	370	540	920	598	75	150	30	N	134 (194)										
	220	350	VFAS1-4220KPC											136 (204)										
	280	450	VFAS1-4280KPC																					
	355	550	VFAS1-4355KPC											880	1150 (1390)	370	418	1120	890	75	150	30	O	260 (370)
	400	600	VFAS1-4400KPC																					
	500	700	VFAS1-4500KPC	1108	1150 (1390)	370	533	1120	1120	75	150	30	P											330 (462)

Note: Value in () includes attached DC reactor.

■ OPTION UNIT
NAME: NEMA TYPE 1 KIT
TYPE FORM: NEMA150Z
□ PARTS

Use of the conduit termination kit, cat. no. NEMA150Z,
NEMA150Z drive top label in place.

TOSHIBA
TRANSFORMER INVERTER
VF511-410PL-WN (R5)
1.1kW 21kVA-15HP

INPUT	OUTPUT
U(V)	3PH 380/500
F(Hz)	50/60
I(A)	37.2/28.4
	27.7

3 Ckt 22000A FUSE J 50Amax
CU AWG 8-75°C

40.1 lb-in/4.5 Nm

Serial No. 1037 11021413 0077 (1)
Lot No. 101 102MY20

Made in Japan
Motor Overload Protection Class 10

 N1971
(Group 1) Class A
201202

  LISTED 170M
IND. CONTROL
E204788

TOSHIBA INDUSTRIAL
PRODUCTS SALES CO. TSUJ

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Summary: Amended Application electronically filed by Ms. Lindsey E Sacher on behalf of The Toledo Edison Company and University of Toledo