

UNIPAK



Contents

<i>Description</i>	<i>Page</i>
Product Overview	V3-T2-49
UNIPUMP	V3-T2-51
UNIPAK	
Features, Benefits and Functions	V3-T2-55
Standards and Certifications	V3-T2-55
Product Selection	V3-T2-56
Wiring Diagram	V3-T2-60
Dimensions	V3-T2-61
AUTOVAR 300 Automatic Power Factor Correction Capacitor Systems	V3-T2-63
AUTOVAR 600 Automatic Power Factor Correction Capacitor Systems	V3-T2-67
AUTOVAR Filter—LV Automatic Detuned Filter. . .	V3-T2-74
Transient-Free Static Switching Power Factor Correction Units	V3-T2-81
HCU2 Harmonic Correction Unit.	V3-T2-83

UNIPAK

Product Description

UNIPAK Low Voltage Fixed Capacitor Banks

- Two-year warranty on capacitor cells (units with standard-duty cells)
- Five-year warranty on capacitor cells (units with heavy-duty cells)
- Indoor/outdoor service
- Wall-mount (up to C2) and floor-mounted units available
- Short lead-times
- Slim profile allows reduced footprint, conserving valuable floor space

UNIPAK with Heavy-Duty Capacitor Cells

- Standard fixed capacitor systems using heavy-duty capacitor cells
- For use in moderate harmonic environments where engineering evaluation allows in place of detuned filter designs
- Provides future conversion capability into a detuned filter system when required by facility growth or increased nonlinear load levels

UNIPAK Low Voltage Fixed Detuned Filters

- Detuned filter systems for low voltage, heavy-duty applications
- Correct power factor in high harmonic environments
- Two-enclosure design isolates capacitors from high-temperature operating reactors and allows for flexible installation
- Five-year cell warranty/ one-year reactor warranty
- Three-phase cell capacitor construction

Application Description

Designed for power factor correction in plants experiencing harmonics problems due to high amounts of nonlinear loads.

Features, Benefits and Functions

UNIPAK Low Voltage Fixed Capacitor Banks

- **Outer enclosure:** Heavy, No. 14 gauge steel finished with durable baked powder coat finish. Wall-mounting flanges and floor-mounting feet. Elimination of knockouts permits indoor/outdoor use. Manufactured to NEMA 1 and 3R requirements
- Elevated floor-mounting feet allow access for easy maintenance
- **Cover:** "L" shaped gasketed cover with multiple fasteners provides front opening for ease of installation and service
- **UNIPAK operating temperature:** -40 °F to +115 °F (-40 °C to +46 °C)
- **UNIPAK storage temperature:** -40 °F to +131 °F (-40 °C to +55 °C)
- **Power and ground terminal lugs:** Furnished inside enclosure
- **Pressure-sensitive interrupter:** All units have built-in UL recognized pressure-sensitive interrupter, and thermally or mechanically activated disconnecting link removes capacitor from the supply before dangerous pressure buildup or excessive fault current occurs. Bulged capacitor cell top provides easy visual indication of interrupter operation

- **Standard fusing:**
 - **Size Code A1:** Three midget-type fuses with 100,000 A interrupting capacity
 - **Size Code A2 and larger:** Slotted-blade type fuses with 200,000 A interrupting capacity; fuses mounted on stand-off bushings; solderless connectors for easy hookup of incoming line conductors
- **Fuse indicating lights:** Red, neon cleared-fuse indicating lights are protected by transparent weatherproof guard
- **Options:**
 - Non-fused units available, selected sizes
 - Heavy-duty capacitor cells, selected sizes

UNIPAK Low Voltage Fixed Detuned Filters

- **Enclosures:** Standard NEMA 1 enclosures have durable baked powder coat finish
- **UNIPAK detuned filter operating temperature:** -40 °F to +115 °F (-40 °C to +46 °C)
- **UNIPAK detuned filter storage temperature:** -40 °F to +131 °F (-40 °C to +55 °C)
- **Power and ground terminal lugs:** Furnished inside enclosures

Standards and Certifications

UNIPAK Low Voltage Fixed Capacitor Banks

- UL 810 and CSA C.22.2 No.190 Listed

UNIPAK Low Voltage Fixed Detuned Filters

- UL 508A and CSA C22.2 No. 190 Listed



480 Vac UNIPAK Selection Chart

kvar	Rated Current (Amperes)	Enclosure	Shipping Weight in Lb (kg)	Catalog Number
1.5	1.8	A1	17 (8)	1X43PMURF
2	2.4	A1	18 (8)	243PMURF
2.5	3	A1	18 (8)	2X43PMURF
3	3.6	A1	19 (9)	343PMURF
4	4.8	A1	19 (9)	443PMURF
5	6	A1	19 (9)	543PMURF
6	7.2	A1	19 (9)	643PMURF
7.5	9	A1	20 (9)	7X43PMURF
8	9.6	A1	20 (9)	843PMURF
9	10.8	A1	20 (9)	943PMURF
10	12	A1	20 (9)	1043PMURF
12.5	15	A2	29 (13)	12X43PMURF
15	18	A2	29 (13)	1543PMURF
17.5	21	A2	30 (14)	17X43PMURF
20	24	A2	31 (14)	2043PMURF
22.5	27	B1	44 (20)	22X43PMURF
25	30	A2	32 (15)	2543PMURF
27.5	33	B1	44 (20)	27X43PMURF
30	36	B1	44 (20)	3043PMURF
32.5	39	B1	45 (20)	32X43PMURF
35	42	B1	45 (20)	3543PMURF
37.5	45	B1	46 (21)	37X43PMURF
40	48	B1	46 (21)	4043PMURF
42.5	51	B1	47 (21)	42X43PMURF
45	54	B1	47 (22)	4543PMURF
50	60	B1	48 (22)	5043PMURF
55	66	C1	48 (22)	5543PMURF
60	72	C1	48 (22)	6043PMURF
65	78	C1	64 (29)	6543PMURF
70	84	C1	65 (30)	7043PMURF
75	90	C1	65 (30)	7543PMURF
80	96	C1	66 (30)	8043PMURF
85	102	C1	68 (31)	8543PMURF
90	108	C1	68 (31)	9043PMURF
100	120	C1	69 (31)	10043PMURF
120	144	C2	69 (31)	12043PMURF
125	150	C2	99 (45)	12543PMURF
140	168	C2	100 (46)	14043PMURF
150	180	C2	101 (46)	15043PMURF
160	192	D1	103 (47)	16043PMURF
180	216	D1	104 (47)	18043PMURF
200	240	D1	137 (62)	20043PMURF
225	270	D1	140 (64)	22543PMURF
250	300	E1	170 (77)	25043PMURF
300	360	E1	175 (80)	30043PMURF
350	420	E1	182 (83)	35043PMURF
400	480	E1	189 (86)	40043PMURF

600 Vac UNIPAK Selection Chart

kvar	Rated Current (Amperes)	Enclosure	Shipping Weight in Lb (kg)	Catalog Number
5	4.9	A1	19 (9)	563PMURF
7.5	7.4	A1	19 (9)	7X63PMURF
10	9.8	A1	20 (9)	1063PMURF
12.5	12.3	A1	20 (9)	12X63PMURF
15	14.7	A2	29 (13)	1563PMURF
17.5	17.2	A2	29 (13)	17X63PMURF
20	19.6	A2	30 (14)	2063PMURF
22.5	22.1	B1	44 (20)	22X63PMURF
25	24.5	B1	31 (14)	2563PMURF
27.5	27.0	B1	44 (20)	27X63PMURF
30	29.4	B1	45 (20)	3063PMURF
32.5	31.9	B1	45 (20)	32X63PMURF
35	34.3	B1	46 (21)	3563PMURF
37.5	36.8	B1	46 (21)	37X63PMURF
40	39.2	B1	47 (21)	4063PMURF
42.5	41.7	B1	47 (22)	42X63PMURF
45	44.1	B1	48 (22)	4563PMURF
50	49.0	B1	48 (22)	5063PMURF
55	53.9	C1	64 (29)	5563PMURF
60	58.8	C1	64 (29)	6063PMURF
65	63.7	C1	65 (30)	6563PMURF
70	68.6	C1	65 (30)	7063PMURF
75	73.5	C1	66 (30)	7563PMURF
80	78.4	C1	68 (31)	8063PMURF
85	83.3	C1	68 (31)	8563PMURF
90	88.2	C1	69 (31)	9063PMURF
100	98.0	C1	69 (31)	10063PMURF
120	117.6	C2	99 (45)	12063PMURF
125	122.5	C2	100 (46)	12563PMURF
140	137.2	C2	101 (46)	14063PMURF
150	147.0	C2	103 (47)	15063PMURF
160	156.8	D1	135 (61)	16063PMURF
180	176.4	D1	137 (62)	18063PMURF
200	196.0	D1	140 (64)	20063PMURF
225	220.5	D1	143 (65)	22563PMURF
250	245.0	E1	170 (77)	25063PMURF
300	294.0	E1	175 (80)	30063PMURF
350	343.0	E1	182 (83)	35063PMURF
400	392.0	E1	189 (86)	40063PMURF

Notes

Fused with blown-fuse indication available standard.
 Non-fused and no lights also available—please consult the factory.
 Other ratings available, consult factory.
 For dimensional information, refer to **Page V3-T2-61**.
 Part Number
 PMURF—three fuses + three lights
 PMURN—non-fused