

Type X3820/X382G Three Phase AC Filter Capacitor

ASC™ X382 (Three Phase) capacitors are manufactured with very high quality metallized polypropylene film, designed for long life, low dielectric losses, higher RMS current ratings, and low ESR.

The capacitors are filled with ASC™ soft gel or biodegradable vegetable based oil designed to offer excellent thermal conductivity to help reduce internal heating and extend the life of the capacitor.

The capacitor is incorporated with internal UL recognized fusing mechanisms that interrupt when pressure reaches a tested level.



X3820
 X382G

General Specifications

*Capacitance and KVAR ratings are dependent upon voltage levels, frequency and total current

** UL recognized product is limited to 620Vrms max

Parameter	Value
Capacitance	3 x 13μF – 3 x 233μF*
Tolerance	±5%, ±10% – Special tolerance on request
KVAR Ratings	Available on request*
Rated Voltage	240 – 690 Vrms*
Temperature Range (operational)	-40/70C (custom ratings available)
Temperature Range (storage)	-40/85C
RMS Current (phase)	Up to 40 Arms – Higher values on request
Standards	IEC61071, IEC60831, UL810**
Can/ Cover	Aluminum
Terminals	SIGUIT (6 slots with independent screw down clamps)
Suggested Mounting Position	Oil – Upright, Gel – Any position
AFC Rating (UL810)	10,000 A
Tan δ	2 x 10 ⁻⁴ Polypropylene
Terminal to Terminal Test	2.15 x Urms 10 seconds
Terminal to Case Test	U _{T-CASE} = 2 U ₁ +1000V or 3000V whichever is highest value
Reliability	100 FIT

Applications

AC input and output filtering

X3820/X382G

ASC Capacitors for Power Electronics



X3820/X382G (Three Phase) Specifications

Cap [μF]	I _{TERM} * [A _{RMS}]	I _{MAX} † (10°ΔT) [A _{RMS}]	I _{PEAK} † [kA]	I _{SURGE} † [kA]	R _{th} C-E [°C/W]	ESR (1kHz) [mΩ]	Diameter “D” [mm]	Height “H” [mm]	Weight [kg]	Pieces / Box
240 Vrms			340 Vac Peak		516 Vsurge					
3 x 75	56.0	16.0	1.1	3.3	6.1	1.5	75	157	0.9	10
3 x 140	56.0	22.0	1.6	4.8	4.3	1.2	85	179	1.2	9
3 x 200	56.0	32.0	2.3	6.8	3.3	1.0	100	179	2.1	9
3 x 233	104.0	35.0	3.0	9.0	2.5	0.7	116	179	2.5	5
450 Vrms			636 Vac Peak		968 Vsurge					
3 x 30	56.0	10.0	0.6	1.9	5.3	3.0	75	179	0.9	10
3 x 40	56.0	13.0	0.8	2.5	4.3	2.3	85	179	0.9	9
3 x 60	56.0	18.0	1.2	3.8	3.3	1.5	100	179	1.8	9
3 x 85	104.0	40.0	1.8	5.4	2.5	1.1	116	179	2.5	5
3 x 135	104.0	40.0	1.8	5.6	2.1	1.6	116	233	2.9	5
3 x 190	104.0	40.0	2.6	7.8	1.6	1.2	136	233	4.1	4
525 Vrms			742 Vac Peak		1129 Vsurge					
3 x 16	56.0	8.0	0.5	1.3	5.7	1.5	75	179	1.0	10
3 x 22	56.0	12.0	0.7	2.0	4.4	1.0	85	179	1.3	9
3 x 33	56.0	18.0	1.0	3.0	3.4	0.7	100	179	1.8	9
3 x 65	104.0	30.0	1.3	4.0	2.3	0.7	116	233	2.9	5
3 x 100	104.0	40.0	1.8	5.4	1.8	0.6	136	233	4.1	4
600 Vrms			849 Vac Peak		1290 Vsurge					
3 x 19	56.0	9.0	0.6	1.8	4.3	1.1	85	179	1.3	10
3 x 27	56.0	16.0	0.8	2.5	3.3	0.8	100	179	1.8	9
3 x 38	56.0	21.0	1.2	3.6	2.6	0.6	116	179	2.4	9
3 x 55	104.0	26.0	1.1	3.4	2.3	0.9	116	233	2.9	5
3 x 85	104.0	38.0	1.4	5.2	1.7	0.6	136	233	4.1	4
690 Vrms			976 Vac Peak		1484 Vsurge		(Max UL Rating is 620 Vrms)			
3x13	56.0	10.0	0.3	1.0	3.9	2.8	75	270	1.3	10
3x18	56.0	13.0	0.4	1.4	3.3	2.0	85	270	1.8	9
3x27	56.0	18.0	0.7	2.1	2.6	1.3	100	270	2.4	9
3x38	104.0	25.0	0.9	2.9	1.9	1.0	116	270	3.3	5
3x55	104.0	32.0	1.4	4.3	1.6	0.7	136	270	4.6	4

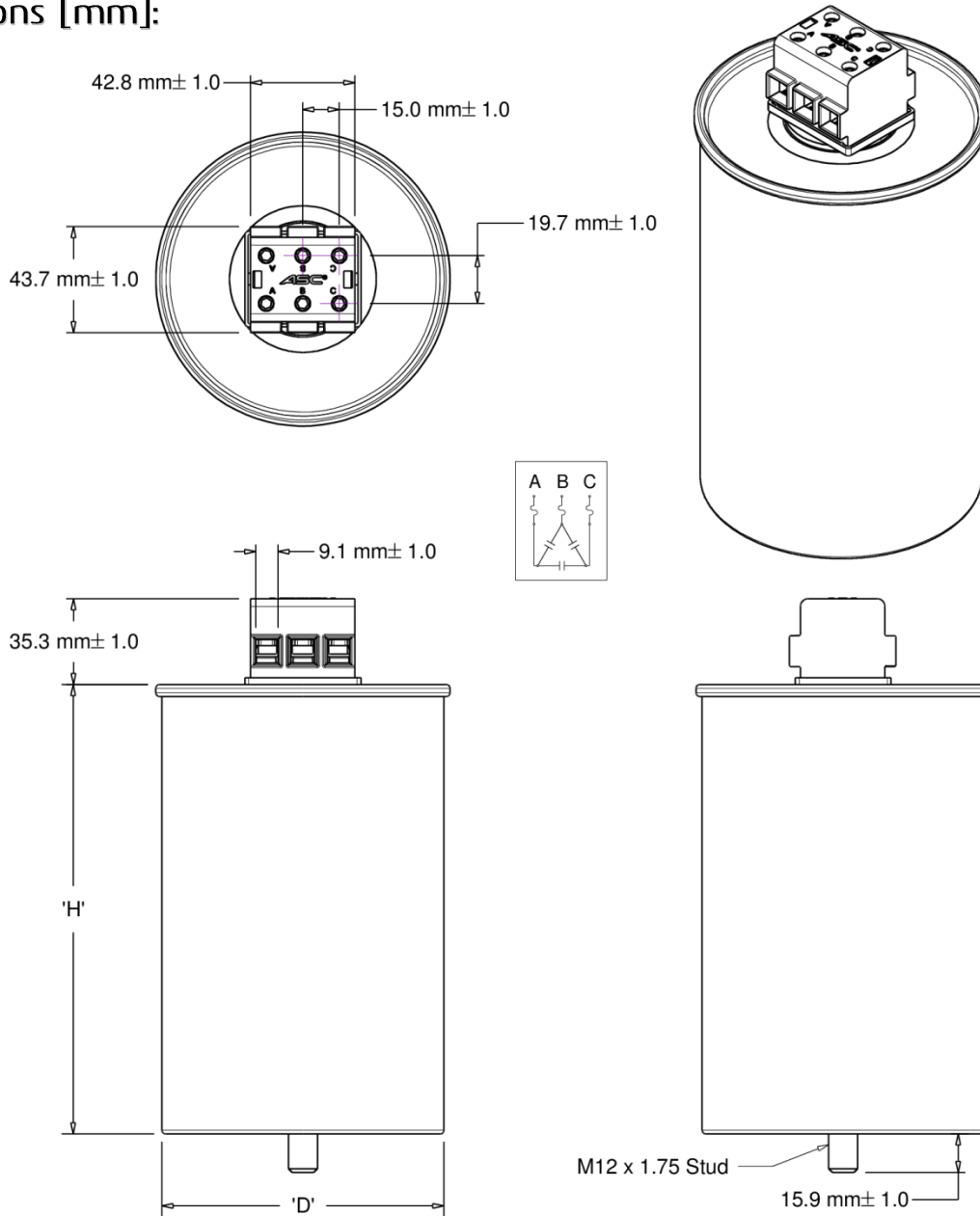
* I_{TERM} is the maximum rated pass-through terminal current. This rating is applicable when connecting multiple capacitors in parallel.

† I_{MAX}, I_{PEAK}, and I_{SURGE} current ratings are designated as maximum phase current ratings.

To convert I_{MAX} to line current, use the following formula: $I_{MAX(Line)} = I_{MAX(Phase)} * \sqrt{3}$

Note that I_{PEAK} and I_{SURGE} should not be converted to line currents with this formula because peak and surge events are rarely shared equally among the phases.

Dimensions [mm]:



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X382G

Ordering Information:

Type	Fill Material	Capacitance	Tolerance	Voltage
X382	O = Oil	3X13	5 = ±5%	240
	G = Gel	↕ 3X233	10 = ±10%	↕ 690

Examples:	Order Code
Type X382, Oil Filled, 3 x 200uF ±5%, 240 Vrms	X3820 3X200-5-240
Type X382, Gel Filled, 3 x 55uF ±10%, 600 Vrms	X382G 3X55-10-600