

QAS, QAL, QFS, QFL Quick-Action Fuses



Specifications:

- Rated voltage: 250-600V_{AC}; 300-500V_{DC}
- Rated current: 10A-300A
- Breaking capacity: 100kA at 250V_{AC} and 600 V_{AC}; 10kA at 300 V_{DC} and 500 V_{DC}
- Power loss: 1W-43W
- Connecting bar: 0.016-0.310in² (10-200mm²)
- I²t (A²S)X10³: Pre-arcing = .009-14; Operating at 250V_{AC} = .04-102; Operating at 600V_{AC} = .6-175
- Approvals:



Overcurrent Protection for Semiconductor Elements and Cables

The QAS, QAL, QFS, QFL product lines feature L-type terminals and carry a rated voltage of up to 600 VAC and 500 VDC, 300A max, 100K AIC. They feature a high current-limiting effect and superior quick-action fusing performance, excellent arc-suppressing performance, and reliable breaking action. Because of their low power loss, they save energy and also feature low surge voltage at the breaking point. Superior non-degradation characteristics make it ideal for motors subject to extreme load variations.




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Applications: Typical applications include inverters, arc welders, rectifiers, CNC equipment, battery circuits, and other protective applications.

Features:

- L-type terminal construction for easy installation
- RU, cRUus, and TÜV approved products available
- Large breaking capacity (100kA)
- Low I²t value, semiconductor protection balance can be easily obtained
- Compact and lightweight
- Resistant to repetitive currents
- Excellent current-limiting characteristics
- Low power loss

Options

	Model	Rated Current (A)	Rated Voltage (V)	Breaking Capacity (VAC / VDC)
RU	QAS25U-□	20 to 100	250VAC / 300VDC	10kA / 10kA
	QAL25U-□	75 to 300	250VAC / 300VDC	10kA / 10kA
	QAS60U-□	20 to 75	600VAC / 500VDC	100kA / 10kA
	QAL60U-□	100 to 300	600VAC / 500VDC	100kA / 10kA
C RU US △	QFS25U-□	10 to 100	250VAC (cRUus, TÜV) 400VDC (cRUus)	10kA / 10kA
	QFL25U-□	75 to 300	250VAC (cRUus, TÜV) 400VDC (cRUus)	10kA / 10kA
Indicator Fuse	Increase uptime by pinpointing open fuses with this instant visual identification.			
Microswitch with Housing	Couple the indicator fuse with a microswitch to create an integrated system which provides a signal to a panel or CPU to inform a technician about which fuse is blown.			
Fuse Holder	Increase mounting options by incorporating a fuse holder into your system. (Available for QFS25 & QAS25 only)			

*RU, UL Recognized Component:
UL file # E174284 (250VAC/300VDC, 600VAC/500VDC)

*cRUus, UL Recognized Component, U.S.A. & Canada:
UL file # E174284 (250VAC/400VDC)

*TÜV Approved:
TÜV file # J2150262, J2150268, J2150270, J2150271 (250VAC)

*These approvals are options available in this product family, general products do not carry these approvals. Review the Airpax catalog and website for further information on part numbers and product specifications for these approvals.

AIRPAX

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Ratings & Specifications

Model	Rated Voltage	Rated Current (A)	Breaking Capacity *1	Power Loss *6		Pre-Operating at V _{OC} *3,4,8
				(W)	Connecting Bar In ² mm ²	
QAS25-20 (S)	250 V _{AC}	20	2.0	0.019	12	0.03
QAS25-30 (S)	250 V _{AC}	30	3.0	0.019	12	0.054
QAS25-50 (S)	250 V _{AC}	50	5.0	0.037	24	0.17
QAS25-75 (S)	250 V _{AC}	75	7.0	0.050	32	0.49
QAS25-100 (S)	250 V _{AC}	100	10.0	0.070	45	0.87
QAL25-75 (S)	300 V _{OC}	75	8.0	0.050	32	0.49
QAL25-100 (S)	300 V _{OC}	100	10.0	0.070	45	0.87
QAL25-150 (S)	300 V _{OC}	150	15.0	0.116	75	1.9
QAL25-200 (S)	300 V _{OC}	200	20.0	0.248	160	3.5
QAL25-300 (S)	300 V _{OC}	300	30.0	0.310	200	8.9
QAS60-20 (S)	600 V _{AC}	20	3.0	0.019	12	0.030
QAS60-30 (S)	600 V _{AC}	30	5.0	0.019	12	0.054
QAS60-50 (S)	600 V _{AC}	50	10.0	0.037	24	0.17
QAS60-75 (S)	600 V _{AC}	75	17.0	0.050	32	0.47
QAL60-100 (S)	600 V _{AC}	100	20.0	0.050	32	0.87
QAL60-150 (S)	600 V _{AC}	150	26.0	0.155	100	2.3
QAL60-200 (S)	600 V _{AC}	200	32.0	0.248	160	4.4
QAL60-250 (S)	600 V _{AC}	250	38.0	0.310	200	7.9
QAL60-300 (S)	600 V _{AC}	300	43.0	0.310	200	14.0
QFS25-10 (S)	250 V _{AC}	10	1.0	0.016	10	0.009
QFS25-20 (S)	250 V _{AC}	20	2.1	0.022	14.4	0.035
QFS25-30 (S)	250 V _{AC}	30	3.8	0.040	26	0.055
QFS25-50 (S)	250 V _{AC}	50	5.9	0.070	45	0.18
QFS25-75 (S)	250 V _{AC}	75	8.0	0.093	60	0.49
QFS25-100 (S)	250 V _{AC}	100	10.0	0.124	80	0.88
QFL25-75 (S)	400 V _{OC}	75	7.7	0.093	60	0.49
QFL25-100 (S)	400 V _{OC}	100	10.6	0.124	80	0.88
QFL25-150 (S)	400 V _{OC}	150	17.6	0.194	125	1.98
QFL25-200 (S)	400 V _{OC}	200	22.5	0.310	200	3.51
QFL25-300 (S)	400 V _{OC}	300	35.4	0.465	300	8.99

External Dimensions

Model	External dimensions: in (mm)											Weight oz (gram)	Mounting Hole, Bolt Size Limit		
	A	B	C	D	E	F	G	T	W	J	K			L	
QFS25-10 (S)															
QAS25-20 (S)															
QFS25-20 (S)															
QAS25-30 (S)															
QFS25-30 (S)	2.205	1.654	1.024	0.728	0.689	0.335	0.256	0.079	0.472	1.024	0.689	0.866		1.058	≤ 1/4 - 20
QAS25-50 (S)	(56)	(42)	(28)	(18.5)	(17.5)	(6.5)	(6.5)	(2)	(12)	(26)	(17.5)	(22)		(30)	(≤ M6)
QFS25-50 (S)															
QAS25-75 (S)															
QFS25-75 (S)															
QAS25-100 (S)															
QFS25-100 (S)															
QAL25-75 (S)															
QAL25-75 (S)	3.150	2.283	1.142	1.220	1.063	0.433	0.354	0.118	0.787	1.378	0.846	1.181		3.527	≤ 5/16 - 18
QAL25-100 (S)	(80)	(58)	(29)	(31)	(27)	(11)	(9)	(3)	(20)	(35)	(21.5)	(30)		(100)	(≤ M9)
QAL25-150 (S)															
QAL25-150 (S)															
QAL25-200 (S)															
QFL25-200 (S)	3.346	2.362	1.142	1.358	1.220	0.512	0.433	0.118	0.984	1.535	0.925	1.240		4.762	≤ 7/16 - 14
QAL25-200 (S)	(85)	(60)	(29)	(34.5)	(31)	(13)	(11)	(3)	(25)	(39)	(23.5)	(31.5)		(135)	(≤ M11)
QAL25-300 (S)															
QFL25-300 (S)	3.346	2.362	1.142	1.594	1.457	0.512	0.433	0.118	1.181	1.771	1.043	1.358		6.526	≤ 7/16 - 14
QAL25-300 (S)	(85)	(60)	(29)	(40.5)	(37)	(13)	(11)	(3)	(30)	(45)	(28.5)	(34.5)		(185)	(≤ M11)
QAS60-20 (S)															
QAS60-30 (S)	2.756	2.205	1.575	0.728	0.689	0.335	0.256	0.079	0.472	1.024	0.689	0.866		1.270	≤ 1/4 - 20
QAS60-50 (S)	(70)	(56)	(40)	(18.5)	(17.5)	(6.5)	(6.5)	(2)	(12)	(26)	(17.5)	(22)		(36)	(≤ M6)
QAS60-75 (S)															
QAS60-100 (S)															
QAS60-100 (S)	3.661	2.795	1.654	1.240	1.063	0.433	0.354	0.118	0.787	1.378	0.846	1.181		4.056	≤ 5/16 - 18
QAS60-150 (S)	(93)	(71)	(42)	(31.5)	(27)	(11)	(9)	(3)	(20)	(35)	(21.5)	(30)		(115)	(≤ M9)
QAS60-150 (S)	3.819	2.835	1.614	1.358	1.220	0.512	0.433	0.118	0.984	1.535	0.925	1.240		5.291	≤ 7/16 - 14
QAS60-200 (S)	(97)	(72)	(41)	(34.5)	(31)	(13)	(11)	(3)	(25)	(39)	(23.5)	(31.5)		(150)	(≤ M11)
QAS60-200 (S)	3.898	2.913	1.693	1.594	1.457	0.512	0.433	0.118	1.181	1.771	1.043	1.358		7.760	≤ 7/16 - 14
QAS60-250 (S)	(99)	(74)	(43)	(40.5)	(37)	(13)	(11)	(3)	(30)	(45)	(28.5)	(34.5)		(220)	(≤ M11)
QAS60-300 (S)															

*1. Time constant is 4ms max.
 *2. Calculated value.
 *3. Actual measured value at conventional current of 250V_{AC} at 100KA (r.m.s.) and short-circuit power factor of 14%.

*4. Indicates actual measured value at conventional current of 600V_{AC} at 100KA (r.m.s.) and short-circuit power factor of 7%.

*5. QAS / QAL / QFS / QFL - Specifications of the indicator fuse are the same.

*6. Max value at rated current.

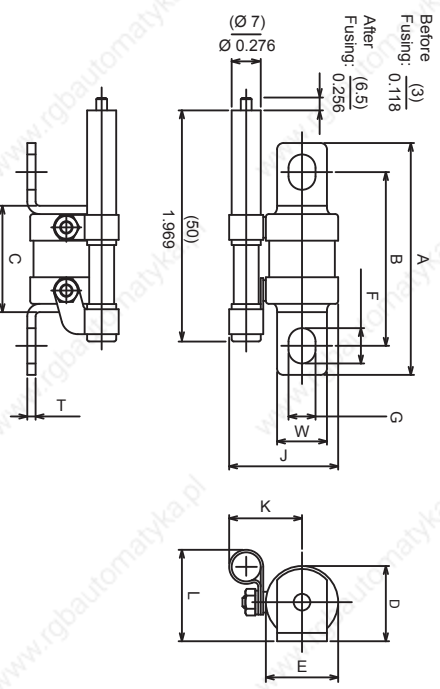
*7. Radiation is not considered in this calculated value.

*8. Max value at conventional current of 250V_{AC} at 100KA (r.m.s.) and short-circuit power factor of 16%.

(S) : Indicator fuse option available, place an S at the end of the PN. Example QAS60-300 becomes QAS60-300S

Outline drawings show fuse with indicator fuse specifications

**Review the Aiplex full catalog and website for further info on PNs and options available



1 First Decision
Model
QAS25
QAL25
QAS60
QAL60
QFS25
QFL25
QAS25U
QAL25U
QAS60U
QAL60U
QFS25U
QFL25U
QFL25U-D-T

General Product (no approvals)

RU

cRU US

cRU US

QAS25 -

2 Second Decision
Rated current (A)
Input a value from 10 to 300 Use reference table "Ratings & Specifications"

3 Third Decision	
Accessories	
No entry	Fuse unit only
S	Equipped with fusing indicator fuse
S-M1	Equipped with fusing indicator fuse and microswitch with housing (silver contacts, solder-on terminals)**
S-M2	Equipped with fusing indicator fuse and microswitch with housing (gold contacts, quick-connect #110 terminals)
S-M3	Equipped with fusing indicator fuse and smaller microswitch with housing (silver contacts, solder-on terminals)**
S-M4	Equipped with fusing indicator fuse and smaller microswitch with housing (gold contacts, solder-on terminals)**
T	cRUUS, TÜV approved product; available only on QFS25U and QFL25U. No indicator fuse or microswitch options.