

SQUARE D COMPANY SMYRNA, TN	ENGINEERING STANDARD	E 51150
SUBJECT VAD-2 BREAKER, METALCLAD SWITCHGEAR, SERIES 2	PAGE 1 OF 2	

1. PURPOSE

To document breaker and breaker components technical data and reference information.

2. APPLICABLE TO

Application and Order Engineering, Marketing and Sales

3. VAD-2 BREAKER STANDARD RATINGS

CATALOG NO. (MARKETING)	CAT (INT)	(1) MAX KV	(2) FACT K	(3) CONT. CURR. A	(4) SHORT CIRC KA	(5) MIN KV	(6) MAX INT KA	(7) CLOSE LATCH KA	(8) MVA CLASS REF
VAD-2-05025-12	V2D31	4.76	1.24	1200	29	3.85	36	97	(250MVA)
VAD-2-05025-20	V2D32	4.76	1.24	2000	29	3.85	36	97	(250MVA)
VAD-2-05025-30	V2D33	4.76	1.24	3000	29	3.85	36	97	(250MVA)
VAD-2-05035-12	V2D41	4.76	1.19	1200	41	4.00	49	132	(350MVA)
VAD-2-05035-20	V2D42	4.76	1.19	2000	41	4.00	49	132	(350MVA)
VAD-2-05035-30	V2D43	4.76	1.19	3000	41	4.00	49	132	(350MVA)
VAD-2-08050-12	V2D51	8.25	1.25	1200	33	6.60	41	111	(500MVA)
VAD-2-08050-20	V2D52	8.25	1.25	2000	33	5.50	41	111	(500MVA)
VAD-2-08050-30	V2D53	8.25	1.25	3000	33	5.50	41	111	(500MVA)
VAD-2-15050-12	V2D61	15.0	1.30	1200	18	11.5	23	62	(500MVA)
VAD-2-15050-20	V2D62	15.0	1.30	2000	18	11.5	23	62	(500MVA)
VAD-2-15050-30	V2D63	15.0	1.30	3000	18	11.5	23	62	(500MVA)
VAD-2-15075-12	V2D71	15.0	1.30	1200	28	11.5	36	97	(750MVA)
VAD-2-15075-20	V2D72	15.0	1.30	2000	28	11.5	36	97	(750MVA)
VAD-2-15075-30	V2D73	15.0	1.30	3000	28	11.5	36	97	(750MVA)
VAD-2-15100-12	V2D81	15.0	1.30	1200	37	11.5	48	130	(1000MVA)
VAD-2-15100-20	V2D82	15.0	1.30	2000	37	11.5	48	130	(1000MVA)
VAD-2-15100-30	V2D83	15.0	1.30	3000	37	11.5	48	130	(1000MVA)

Rated interrupting time: 3 cycles

- [D]
- (1) Rated maximum voltage, KV, rms
 - (2) Rated voltage range, Factor "K"
 - (3) Rated continuous current at 60HZ (AMP, RMS)
 - (4) Rated short circuit current at rated maximum KV, (KA, RMS)
 - (5) Rated maximum voltage divided by "K", (KV, RMS)
 - (6) Maximum symmetrical interrupting capability & rated short-time current (KA, RMS)
 - (7) Closing & latching capability 2.7 times rated short circuit current KA times "K", crest
 - (8) MVA class reference

A	1/92	WRB	C	7/93	JWM				PREPARED		APPROVED
									BY	DATE	
B	8/92	WRB	D	11/93	GEB				JWM	12/7/87	JWM

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4. CONTROL VOLTAGES & CONTROL RATING

CONTROL DESCRIPTION	PART #	RATED VOLTAGE	CURRENT AT RATED VOLTAGE (A)	TIME DURATION OF CURRENT FLOW	BURDEN (VA)	DC RESISTANCE (OHMS)
CHARGING MOTOR	44071-186-51	48 VDC	9.0		432	--
	44071-186-50	125 VDC	5.0		625	--
	44071-186-52	250 VDC	5.0		1250	--
	44071-186-50	120 VAC	5.0		600	--
	44071-186-52	240 VAC	5.0		1200	--
MOTOR RELAY	44068-069-07	48 VDC	0.042	--	2.0	1200
	44068-069-03	125 VDC	0.016	--	2.0	6000
	44068-069-05	250 VDC	0.008	--	2.0	24000
	44068-069-01	120 VAC	0.083	--	10.0	280
	44068-069-02	240 VAC	0.042	--	10.0	1200
ANTI-PUMP RELAY	44068-069-07	48 VDC	0.042	--	2.0	1200
	44068-069-04	125 VDC	0.016	--	2.0	6000
	44068-069-06	250 VDC	0.008	--	2.0	24000
	44068-069-01	120 VAC	0.083	--	10.0	280
	44068-069-02	240 VAC	0.042	--	10.0	1200
CLOSING SOLENOID	46011-055-02	48 VDC	13.6		653	2.7
	46011-055-03	125 VDC	6.0		750	18.0
	46011-055-04	250 VDC	3.0		750	85.0
	46011-055-05	120 VAC	6.0		720	4.5
	46011-055-02	240 VAC	3.0		720	18.0
TRIP SOLENOID	46011-056-01	24 VDC	30.0		720	.7
	46011-056-02	48 VDC	13.6		653	2.7
	46011-056-03	125 VDC	6.0		750	18.0
	46011-056-04	250 VDC	3.0		750	85.0
	46011-056-05	120 VAC	6.0		720	4.5
	46011-056-03	240 VAC	3.0		720	18.0

CONTROL VOLTAGE OPERATING RANGE (ANSI 37.06, TABLE 9)

Rated Voltage	Closing Voltage Range	Tripping Voltage Range
24 VDC	NOT AVAILABLE	14-28 VDC
48 VDC	38-56 VDC	28-56 VDC
125 VDC	100-140 VDC	70-140 VDC
250 VDC	200-280 VDC	140-280 VDC
120 VAC	104-127 VAC	104-127 VAC
240 VAC	208-254 VAC	208-254 VAC

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										APPROVED
										JWM