

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