

DVS

Regulating Transformer

SINGLE OR THREE PHASE 5-225KVA



AMETEK[®]

SOLIDSTATE CONTROLS
PROVIDING CONTINUITY OF ELECTRICAL POWER

DVS

Single or Three Phase Regulating Transformer

5-225 kVA



The DVS accommodates wide variations of incoming AC line voltage, while regulating and conditioning the AC output to preset limits. Suitable for harsh environments, the robust design utilizes a copper-wound, low-impedance isolation transformer. The DVS incorporates state-of-the-art microprocessor technology and independent phase regulation engineered to eliminate voltage spikes and sags.

- High reliability - Exceeds 205,000 hours MTBF
- Low-audible noise of 65-72 dBA
- High efficiency - Operating at 95% efficiency at full load
- Transient response time of less than 2 cycles
- Correction time does not exceed 5 cycles
- Low total harmonic distortion of $\leq 1\%$
- Industrial grade - built to operate in extreme environmental conditions
- Designed to be used with Inverter/UPS systems
- Tight AC output regulation of $\pm 2\%$ ($\pm 1\%$ optional)

Unit displayed with optional features

General Specifications										
Performance						Standard Features				
AC Input						Circuit Breaker				
Nominal Voltage ¹	60 Hz: 1Ø - 120, 220, 480; 3Ø - 208, 480, 600 50 Hz: 1Ø - 220, 380, 415; 3Ø - 220, 380, 415					AC Input Circuit Breaker (14 kAIC minimum)				
Input Range	+ 10% to - 15%					Relays & LEDs				
Frequency	50 or 60 Hz, ± 3 Hz					Common Alarm Regulator Failure Fan Failure				
AC Output						Optional Features (Option #)				
kVA Ratings	5-225 kVA					Metering and System Measurements				
AC Output Voltage ¹	60 Hz - 120, 208/120, 480/277 50 Hz - 220, 415/240, 380/220					AC Input Voltage (20) AC Input Current (66) AC Output Voltage (80) AC Output Current (79) AC Output Frequency (81)				
Regulation	± 2 % (± 1% optional)					Circuit Breaker				
Voltage Adjustment ²	+ 4%, - 2%					AC Output Circuit Breaker (14kAIC minimum) (18) Hi-K AC Input Circuit Breaker (65kAIC minimum) (82)				
Frequency	50 or 60 Hz					Alarm - All alarm options below include front panel LEDs and relays				
Total Harmonic Distortion (THD)	≤ 1%					Low AC Output Voltage (8) High AC Output Voltage (9) AC Output Overload (40) Cabinet Over Temperature (10) Heatsink Over Temperature (222)				
Load PF	0.6 leading/lagging					Miscellaneous				
Maximum Correction Time	< 5 cycles					Drip Shield (65) Lifting Eye Bolts (105) Padlockable Circuit Breakers (93) PCB Conformal Coating (127) Fungus and Moisture Proof (70) 3-Position Manual Bypass Switch* (MBS) (Refer to RMBS datasheet for optional features)				
Overload Capacity	200% for 30 seconds, 1,000% for 1 cycle					Applicable Standards, Codes and Regulations				
Load Transient Response	≤ 2.5% (no load to full load) Recovery < 2 cycles					NEMA PE-1 ANSI ANSI/NFPA 70				
Efficiency	≥ 95%					IEEE IEC Unit Manufactured in ISO9001 Certified Facility				
Environmental & Mechanical										
Ambient Temperature	32 to 104°F (0 to 40°C)									
Relative Humidity	0-95% non-condensing									
Operating Altitude	10,000 feet (3,048 meters)									
Audible Noise ³	65-72 dB(A) @ 4.9 feet (1.5 meter)									
Mean Time Between Failure (MTBF)	> 205,000 Hours									
Cooling	Aided convection or forced air, depending on kVA rating and design									
Cable Entry	Top or bottom entry standard									
Cabinet Rating	NEMA 1 / IP-20 (IP-21 with optional drip shield)									
Style		H x W x D (Inches)				H x W x D (Millimeters)				
GTDIX		79 x 32 x 36				2,007 x 813 x 914				
GTD2X		79 x 54 x 36				2,007 x 1372 x 914				
DVS Model Coding (Code)⁵										
"DD"			"EE"			"FF"		"GG"		
AC Input Volts (code)			AC Output Volts (code)			Frequency (code)		Output Volts Regulation (code)		
120 - (12)			120 - (12)			60 - (60)		2% - (2R)		
208 - (20)			208 - (20)			50 - (50)		1% - (1R)		
220 - (22)			220 - (22)							
380 - (38)			380 - (38)							
415 - (41)			415 - (41)							
480 - (48)			480 - (48)							
600 - (60)										
Model Number	kVA	Input Amps		Input Breaker Ampacity		Output Amps	Heat Loss BTU/Hr	Cabinet Style ⁶	Weight lb	Weight kg
		120 VAC	480 VAC	120 VAC	480 VAC	120 VAC				
DVS1005	5	51	13	70	20	42	711	GTDIX	447	203
DVS1007	7.5	77	19	100	25	63	1,066	GTDIX	497	226
DVS1010	10	102	26	150	35	83	1,422	GTDIX	569	258
DVS1015	15	153	38	200	50	125	2,133	GTDIX	651	296
DVS1020	20	206	52	300	60	167	3,592	GTDIX	824	374
DVS1030	30	310	77	400	70	250	5,387	GTDIX	842	382
DVS1040	40	413	103	600	150	333	7,183	GTDIX	1,050	477
DVS1050	50	516	129	700	175	417	8,979	GTDIX	1,222	555
DVS1060	60	619	155	800	200	500	10,775	GTDIX	1,287	584
DVS1080	80	826	206	Contact us	300	667	14,366	GTD2X	1,350	612
DVS1100	100	1,032	258		350	833	17,958	GTD2X	1,960	889
Model Number	kVA	Input Amps		Input Breaker Ampacity		Output Amps	Heat Loss BTU/Hr	Cabinet Style ⁶	Weight lb	Weight kg
		208 VAC	480 VAC	208 VAC	480 VAC	208 VAC				
3DVS1010	10	34	15	50	20	28	1,422	GTDIX	572	260
3DVS1015	15	51	22	70	30	42	2,133	GTDIX	676	307
3DVS1020	20	68	30	90	40	56	2,843	GTDIX	875	397
3DVS1030	30	102	44	150	60	83	4,265	GTDIX	936	425
3DVS1040	40	136	59	175	80	111	5,687	GTDIX	1,235	561
3DVS1050	50	170	74	225	100	139	7,108	GTDIX	1,352	614
3DVS1060	60	206	89	300	125	167	10,775	GTD2X	1,431	649
3DVS1080	80	275	119	350	150	222	14,366	GTD2X	1,580	717
3DVS1100	100	344	149	500	200	278	17,958	GTD2X	2,035	923
3DVS1125	125	430	186	600	250	347	22,447	GTD2X	2,563	1,163
3DVS1160	160	551	239	700	300	445	28,733	GTD2X	3,152	1,430
3DVS1200	200	688	298	Contact us	400	556	35,916	GTD2X	3,844	1,744
3DVS1225	225	774	336		500	625	40,405	GTD2X	4,290	1,946

1 Custom input and output voltages available - Consult us

2 AC input voltage range shifts upon output voltage adjustment

3 Addition of drip shield may increase noise by 1-3 dBA

4 We recommend the 3-Position Manual Bypass Switch optional feature can help save on space, wiring and overall installation costs.

5 A complete model number includes kVA, AC input voltage (DD), AC output voltage (EE), Frequency (FF) and regulation percentage (GG). To "build" a model number, use the "code" in the matrix shown above, following the example format: DVS1010-DD-EE-FF-GG. For example: A 10 kVA DVS with 120 VAC input, 120 VAC output, 60 Hz frequency, and 2% output voltage regulation would have the model number "DVS1010-12-12-60-2R". For 3-Phase output voltage, place a "3" before the DVS model number.

Specifications subject to change without notice

6 For additional cabinet styles or footprints, contact us.

SERVICE OPTIONS

AMETEK Solidstate Controls' products are known for their high quality. To keep them running smoothly, do not trust the maintenance of them to just anyone. No one will have the in-depth knowledge and familiarity as we do. We care about our products and we provide superior service agreements that ensure your critical power equipment continuously functions as designed.

We offer three levels of multi-year service agreements, designed to support our preventative maintenance schedules.

General Services	Basic	CSA ¹	CSA+ ¹
Pre-Inspection Interview	Annually	Annually	Annually
Post-Inspection Interview	Annually	Annually	Annually
Detailed Service Report	Annually	Annually	Annually
UPS/Inverter/Charger Services	Basic	CSA	CSA+
Visual Inspection	Annually	Annually	Annually
Scheduled Parts Replacement	Every 5 Years	Annually	Annually
System Operational and Functional Testing	Every 5 Years	Annually	Annually
Infrared Scanning/Thermal Imaging	Optional	Optional	Annually
Battery Inspection & Continuity Test	Basic	CSA	CSA+
Visual Inspection	Annually	Annually	Annually
Individual Cell Voltages	Every 5 Years	Annually	Annually
Continuity Test	Every 5 Years	Annually	Annually
Inter-cell resistance	Optional	Optional	Annually
Specific Gravity	Optional	Optional	Annually
System AC Load testing	Optional	Optional	Annually
Battery Capacitance Discharge Testing per IEEE Recommended Schedule	Optional	Optional	Optional
Parts and Service Coverage	Basic	CSA	CSA+
Emergency Service Fee	Waived	Waived	Waived
Guaranteed Emergency Response Time	Not Specified	72 Hours ²	24 Hours ²
Minimum Repair Service Cost per Repair Trip	Waived	Waived	Waived
Parts Covered Under Warranty	Only PM parts covered	All Parts in System	All Parts in System
Transformers (Less than 20 years)	No Coverage	Covered	Covered
Travel and Living Expenses	Billed at cost	Covered	Covered
Labor	Standard Rates	Covered	Covered
Replacement System Manuals	\$350 each	\$175 each	No Cost
Financial Benefits	Basic	CSA	CSA+
Spare Parts Discount	5%	15%	20%
Annualized Pricing	Included	Included	Included
Discount on Training Seminars	None	25%	50%

¹ CSA and CSA+ meet factory recommended guidelines for preventative maintenance

² System restored to safe and stable condition

WORLD HEADQUARTERS

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AMETEK[®]

SOLIDSTATE CONTROLS

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THE PURPOSE OF OUR BUSINESS IS TO PROVIDE CONTINUITY OF ELECTRICAL POWER TO KEEP BUSINESSES IN BUSINESS.

WE DO THIS BY HELPING CLIENTS SOLVE THEIR POWER PROBLEMS AND BY CREATING THE MOST ECONOMICAL LONG-TERM RESULTS.