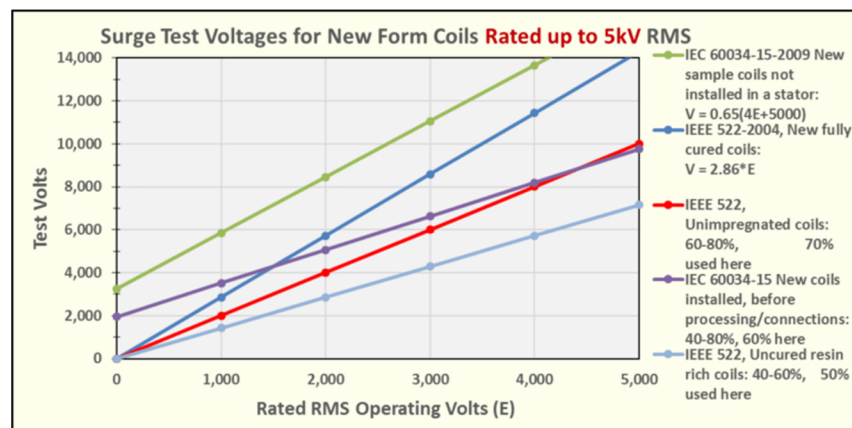
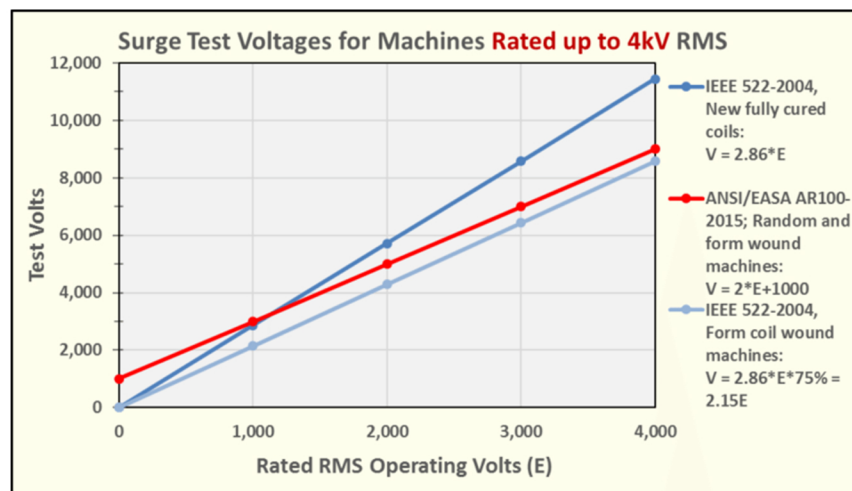


Surge Test Voltages (V) for Maintenance and Used Machines										
RMS Line to Line Voltage	460	575	1000	2,300	3,300	4,160	6,600	11,000	12,000	13,800
ANSI/EASA AR100-2015; Random and form wound machines: $V = 2 * E + 1000$	1,920	2,150	3,000	5,600	7,600	9,320	14,200	23,000	25,000	28,600
IEEE 522-2004, Form coil wound machines: $V = 2.86 * E * 75\% = 2.15E$	986	1,232	2,143	4,930	7,073	8,916	14,146	23,576	25,720	29,578



Surge Test Voltages (V) for New Form Coils										
RMS Line to Line Voltage	460	575	1,000	2,300	3,300	4,160	6,600	11,000	12,000	13,800
IEEE 522-2004, New fully cured coils: $V = 2.86 * E$	1,315	1,643	2,858	6,573	9,431	11,888	18,861	31,435	34,293	39,437
IEEE 522, Unimpregnated coils: 60-80%, 70% used here	920	1,150	2,000	4,601	6,601	8,322	13,203	22,005	24,005	27,606
IEEE 522, Uncured resin rich coils: 40-60%, 50% used here	657	822	1,429	3,286	4,715	5,944	9,431	15,718	17,146	19,718
IEC 60034-15-2009 New sample coils not installed in stator: $V = 0.65(4E + 5000)$	4,446	4,745	5,850	9,230	11,830	14,066	20,410	31,850	34,450	39,130
IEC 60034-15 New coils installed in stator, before processing/connections: 40-80%, 60% used here	2,668	2,847	3,510	5,538	7,098	8,440	12,246	19,110	20,670	23,478

