

LV7000-3 ECODESIGN - ENERGY-EFFICIENCY DIRECTIVE IEC 61800-9



Energy-efficiency-related regulations and standards are gradually being intensified around the world.

The Ecodesign Energy-efficiency Directive is the framework that sets requirements on all energy-related products within the European Union. By this minimum energy-efficiency standards, are established ensuring we reduce the energy consumption and environmental impact of our products.

Motors, AC drives and power drive systems are classified according to their energy efficiency. The **IEC 61800-9-2 standard** defines the IE classes for AC drives and also the IES classes for power drive systems (motor and drive combined).

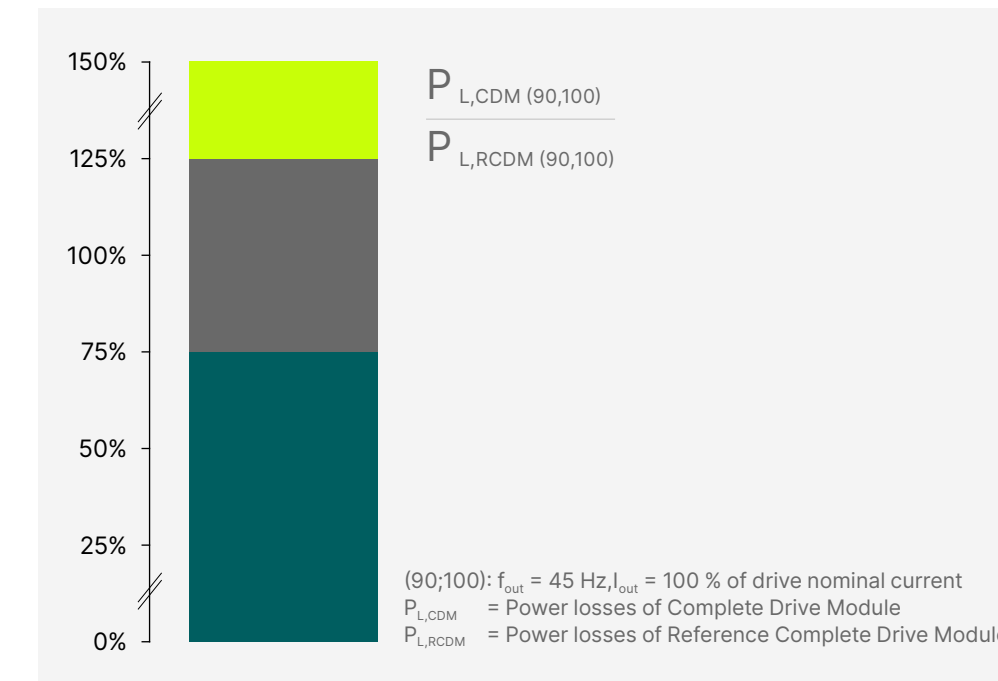
From July 2021, the minimum requirement for none-regenerative AC drives is IE2.

The LV7000-3 products already comply with the strictest requirements of the IEC 61800-9 standard for energy efficiency and are classified as IE2.

The complete drive module (CDM) IE classification is based on drive losses. This includes EMC filters, braking choppers, and other components.

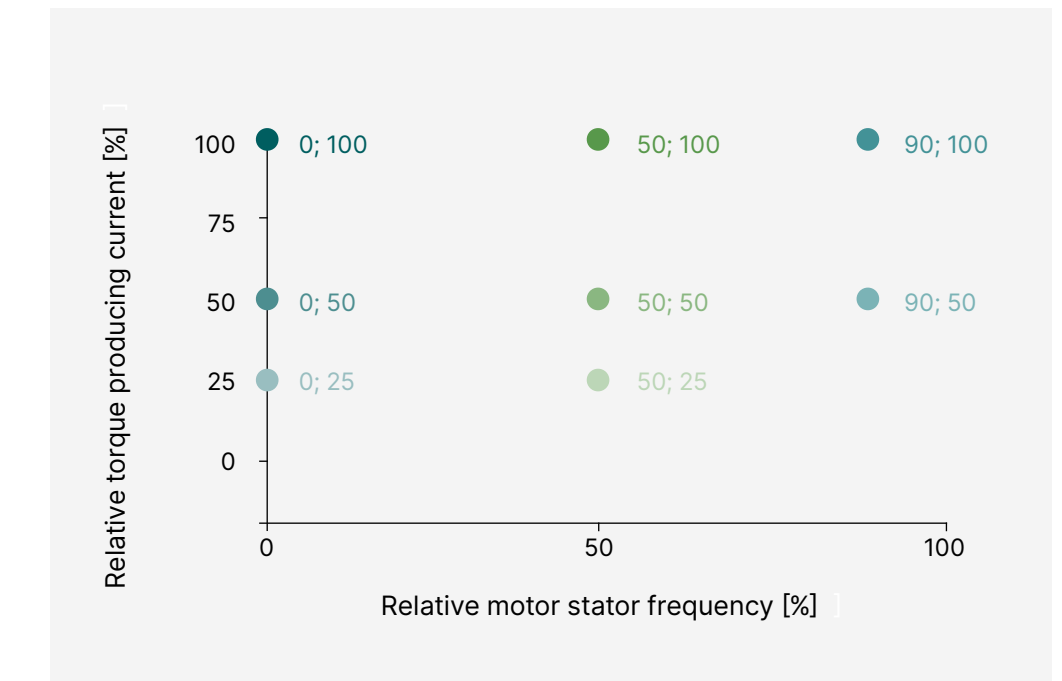
The drive losses are determined according to EN 50598-2 and IEC 61800-9 and is based on factory setting with e.g default switching etc.

IE classes for a CDM



The data points for CDM in torque producing current versus stator frequency used for the determination of compliance with the required IE class

Required power loss data points



The classification is taken at 90% frequency and 100% current

LV7000-3 ECODESIGN - LV7000-3 DRIVE TYPE APPLICABLE IE CLASS



GE VERNOVA

LV7000-3 Drive Type Applicable IE Class > FR 230V

AC Drive LV7000-3	Frame	Drive Type LV7000-3 XXXX	P _{L,CDM} (90;100) / P _{L,RCDM} (90;100)	IE class
FR4 230V 3.3A	FR4	0003	32%	IE 2
FR4 230V 4.8A		0004	34%	IE 2
FR4 230V 6.6A		0007	37%	IE 2
FR4 230V 7.8A		0008	44%	IE 2
FR4 230V 11A		0011	47%	IE 2
FR4 230V 12.5A		0012	44%	IE 2
FR5 230V 17A	FR5	0017	46%	IE 2
FR5 230V 25A		0025	40%	IE 2
FR5 230V 31A		0031	55%	IE 2
FR6 230V 48A	FR6	0048	74%	IE 2
FR6 230V 61A		0061	74%	IE 2
FR7 230V 75A	FR7	0075	49%	IE 2
FR7 230V 88A		0088	61%	IE 2
FR7 230V 114A		0114	75%	IE 2
FR8 230V 140A	FR8	0140	70%	IE 2
FR8 230V 170A		0170	66%	IE 2
FR8 230V 205A		0205	64%	IE 2
FR9 230V 261A	FR9	0261	65%	IE 2
FR9 230V 300A		0300	67%	IE 2

LV7000-3 Drive Type Applicable IE Class > FR 400V

AC Drive LV7000-3	Frame	Drive Type LV7000-3 XXXX	P _{L,CDM} (90;100) / P _{L,RCDM} (90;100)	IE class
FR4 400V 3,3A	FR4	0003	27%	IE 2
FR4 400V 4,3A		0004	26%	IE 2
FR4 400V 5,6A		0005	26%	IE 2
FR4 400V 7,6A		0007	29%	IE 2
FR4 400V 9A		0009	25%	IE 2
FR4 400V 12A		0012	30%	IE 2
FR5 400V 16A	FR5	0016	25%	IE 2
FR5 400V 23A		0022	31%	IE 2
FR5 400V 31A		0031	39%	IE 2
FR6 400V 38A	FR6	0038	44%	IE 2
FR6 400V 45A		0045	42%	IE 2
FR6 400V 61A		0061	50%	IE 2
FR7 400V 72A	FR7	0072	36%	IE 2
FR7 400V 87A		0087	40%	IE 2
FR7 400V 105A		0105	39%	IE 2
FR8 400V 140A	FR8	0140	41%	IE 2
FR8 400V 170A		0168	38%	IE 2
FR8 400V 205A		0205	42%	IE 2
FR9 400V 261A	FR9	0261	43%	IE 2
FR9 400V 300A		0300	42%	IE 2
FR10 400V 385A	FR10	0385	39%	IE 2
FR10 400V 460A		0460	37%	IE 2
FR10 400V 520A		0520	44%	IE 2
FR11 400V 590A	FR11	0590	41%	IE 2
FR11 400V 650A		0650	41%	IE 2
FR11 400V 730A		0730	39%	IE 2
FR12 400V 820A	FR12	0820	41%	IE 2
FR12 400V 920A		0920	42%	IE 2
FR12 400V 1030A		1030	44%	IE 2
FR13 400V 1150A	FR13	1150	40%	IE 2
FR13 400V 1300A		1300	41%	IE 2
FR13 400V 1450A		1450	43%	IE 2

LV7000-3 Drive Type Applicable IE Class > FR 690V

AC Drive LV7000-3	Frame	Drive Type LV7000-3 XXXX	P _{L,CDM} (90;100) / P _{L,RCDM} (90;100)	IE class
FR6 690V 4.5A	FR6	0004	37%	IE 2
FR6 690V 5.5A		0005	32%	IE 2
FR6 690V 7.5A		0007	33%	IE 2
FR6 690V 10A		0010	31%	IE 2
FR6 690V 13.5A		0013	31%	IE 2
FR6 690V 18A		0018	35%	IE 2
FR6 690V 22A	FR7	0022	38%	IE 2
FR6 690V 27A		0027	38%	IE 2
FR6 690V 34A		0034	43%	IE 2
FR7 690V 41A	FR7	0041	37%	IE 2
FR7 690V 52A		0052	43%	IE 2
FR8 690V 62A	FR8	0062	33%	IE 2
FR8 690V 80A		0080	38%	IE 2
FR8 690V 100A		0100	34%	IE 2
FR9 690V 125A	FR9	0125	32%	IE 2
FR9 690V 144A		0144	31%	IE 2
FR9 690V 170A		0170	31%	IE 2
FR9 690V 208A		0208	32%	IE 2
FR10 690V 261A	FR10	0261	30%	IE 2
FR10 690V 325A		0325	33%	IE 2
FR10 690V 385A		0385	36%	IE 2
FR10 690V 416A	FR11	0416	32%	IE 2
FR11 690V 460A		0460	33%	IE 2
FR11 690V 502A	FR11	0502	36%	IE 2
FR11 690V 590A		0590	34%	IE 2
FR12 690V 650A		0650	33%	IE 2
FR12 690V 750A	FR12	0750	35%	IE 2
FR12 690V 820A		0820	36%	IE 2
FR13 400V 1150A	FR13	0920	32%	IE 2

LV7000-3 ECODESIGN - LV7000-3 DRIVE TYPE LOSSES IN KW



LV7000-3 Drive Type Losses in kW > FR 230V											
Frame	Drive Type LV7000-3 XXXX	f _{sw} [kHz]	Standby [kW]	(0;25) [kW]	(0;50) [kW]	(0;100) [kW]	(50;25) [kW]	(50;50) [kW]	(50;100) [kW]	(90;50) [kW]	(90;100) [kW]
FR4	0003	4	0,017	0,034	0,036	0,042	0,034	0,038	0,047	0,041	0,053
	0004	4	0,017	0,037	0,040	0,049	0,038	0,043	0,055	0,047	0,065
	0007	4	0,017	0,043	0,048	0,061	0,044	0,052	0,071	0,058	0,087
	0008	4	0,017	0,047	0,053	0,070	0,049	0,058	0,082	0,066	0,104
	0011	4	0,017	0,058	0,069	0,095	0,061	0,076	0,112	0,086	0,141
	0012	4	0,017	0,064	0,077	0,108	0,068	0,085	0,129	0,098	0,166
FR5	0017	4	0,019	0,085	0,101	0,141	0,088	0,109	0,161	0,121	0,192
	0025	4	0,019	0,092	0,121	0,213	0,098	0,134	0,252	0,154	0,317
FR6	0031	4	0,019	0,111	0,150	0,280	0,119	0,168	0,334	0,197	0,430
	0048	4	0,020	0,190	0,258	0,483	0,207	0,297	0,588	0,350	0,748
FR7	0061	4	0,024	0,247	0,342	0,660	0,270	0,395	0,808	0,472	1,048
	0075	4	0,030	0,244	0,326	0,589	0,262	0,369	0,708	0,433	0,905
FR8	0088	4	0,030	0,284	0,387	0,724	0,307	0,441	0,876	0,523	1,137
	0114	4	0,030	0,372	0,523	1,036	0,404	0,602	1,268	0,727	1,684
FR9	0140	4	0,053	0,510	0,656	1,118	0,548	0,749	1,391	0,897	1,886
	0170	2	0,053	0,565	0,763	1,407	0,607	0,861	1,678	1,008	2,141
FR10	0205	2	0,053	0,665	0,923	1,784	0,718	1,051	2,150	1,250	2,797
	0261	2	0,072	1,028	1,360	2,478	1,095	1,505	2,837	1,691	3,363
FR11	0300	2	0,072	1,019	1,371	2,605	1,098	1,546	3,050	1,776	3,716

LV7000-3 Drive Type Losses in kW > FR 400V											
Frame	Drive Type LV7000-3 XXXX	f _{sw} [kHz]	Standby [kW]	(0;25) [kW]	(0;50) [kW]	(0;100) [kW]	(50;25) [kW]	(50;50) [kW]	(50;100) [kW]	(90;50) [kW]	(90;100) [kW]
FR4	0003	4	0,017	0,034	0,037	0,043	0,035	0,038	0,046	0,040	0,051
	0004	4	0,017	0,037	0,041	0,049	0,038	0,043	0,054	0,046	0,062
	0005	4	0,017	0,042	0,047	0,059	0,043	0,050	0,066	0,055	0,078
	0007	4	0,017	0,050	0,057	0,075	0,052	0,062	0,087	0,069	0,107
	0009	4	0,017	0,055	0,064	0,086	0,057	0,069	0,099	0,077	0,119
	0012	4	0,017	0,057	0,071	0,115	0,060	0,078	0,137	0,090	0,175
FR5	0016	4	0,019	0,074	0,092	0,148	0,077	0,099	0,167	0,109	0,196
	0022	4	0,019	0,097	0,127	0,223	0,102	0,139	0,256	0,156	0,311
FR6	0031	4	0,019	0,127	0,172	0,327	0,134	0,191	0,380	0,219	0,475
	0038	4	0,020	0,182	0,240	0,426	0,196	0,270	0,501	0,308	0,614
FR7	0045	4	0,020	0,212	0,286	0,526	0,229	0,323	0,624	0,373	0,773
	0061	4	0,020	0,282	0,391	0,750	0,305	0,443	0,895	0,519	1,132
FR8	0072	4	0,030	0,284	0,380	0,688	0,301	0,421	0,796	0,479	0,978
	0087	4	0,030	0,319	0,451	0,879	0,342	0,504	1,027	0,586	1,285
FR9	0105	4	0,030	0,383	0,553	1,117	0,413	0,624	1,321	0,735	1,685
	0140	4	0,053	0,565	0,750	1,328	0,602	0,843	1,599	0,995	2,100
FR10	0168	2	0,053	0,562	0,759	1,400	0,603	0,856	1,666	1,001	2,123
	0205	2	0,053	0,658	0,912	1,760	0,711	1,039	2,120	1,236	2,760
FR11	0261	2	0,072	1,029	1,374	2,547	1,095	1,518	2,903	1,704	3,425
	0300	2	0,072	1,155	1,581	3,074	1,233	1,753	3,510	1,980	4,167
FR12	0385	2	0,144	1,543	2,009	3,531	1,637	2,217	4,043	2,482	4,782
	0460	2	0,144	1,737	2,338	4,366	1,849	2,584	4,967	2,893	5,824
FR13	0520	2	0,144	1,902	2,622	5,116	2,031	2,909	5,832	3,276	6,875
	0590	2	0,216	2,361	3,095	5,525	2,501	3,398	6,246	3,767	7,236
FR14	0650	2	0,216	2,518	3,362	6,208	2,674	3,702	7,030	4,124	8,181
	0730	2	0,216	2,737	3,738	7,198	2,915	4,131	8,164	4,626	9,548
FR15	0820	2	0,288	3,216	4,237	7,624	3,412	4,663	8,651	5,190	10,079
	0920	2	0,288	3,478	4,684	8,776	3,702	5,176	9,979	5,793	11,691
FR16	1030	2	0,288	3,782	5,207	10,164	4,036	5,773	11,575	6,497	13,630
	1150	2	0,360	4,263	5,672	10,314	4,541	6,284	11,806	7,054	13,936
FR17	1300	2	0,360	5,026	6,705	12,368	5,339	7,389	14,027	8,241	16,363
	1450	2	0,360	5,433	7,405	14,212	5,788	8,188	16,145	9,179	18,926

LV7000-3 Drive Type Losses in kW > FR 690V											
Frame	Drive Type LV7000-3 XXXX	f _{sw} [kHz]	Standby [kW]	(0;25) [kW]	(0;50) [kW]	(0;100) [kW]	(50;25) [kW]	(50;50) [kW]	(50;100) [kW]	(90;50) [kW]	(90;100) [kW]
FR6	0004	4	0,026	0,102	0,110	0,128	0,103	0,112	0,132	0,114	0,138
	0005	4	0,026	0,110	0,119	0,142	0,111	0,122	0,147	0,125	0,155
	0007	4	0,026	0,112	0,128	0,170	0,114	0,131	0,179	0,136	0,192
	0010	4	0,026	0,127	0,149	0,208	0,130	0,153	0,220	0,161	0,241
	0013	4	0,026	0,149	0,179	0,264	0,152	0,186	0,282	0,198	0,317
	0018	4	0,026	0,178	0,220	0,344	0,182	0,230	0,370	0,248	0,428
FR7	0022	4	0,026	0,205	0,258	0,423	0,210	0,271	0,457	0,296	0,541
	0027	4	0,026	0,240	0,310	0,534	0,246	0,326	0,579	0,362	0,700
FR8	0034	4	0,026	0,293	0,389	0,717	0,299	0,410	0,777	0,463	0,963
	0041	4	0,059	0,346	0,447	0,776	0,356	0,473	0,848	0,518	0,990
FR9	0052	4	0,059	0,400	0,548	1,057	0,414	0,586	1,160	0,653	1,385
	0062	4	0,062	0,560	0,718	1,188	0,572	0,749	1,269	0,803	1,433
FR10	0080	4	0,062	0,678	0,895	1,571	0,695	0,939	1,686	1,019	1,941
	0100	2	0,062	0,564	0,740	1,288	0,592	0,810	1,489	0,927	1,873
FR11	0125	2	0,106	0,857	1,059	1,678	0,890	1,132	1,858	1,226	2,120
	0144	2	0,106	0,933	1,176	1,937	0,973	1,264	2,157	1,380	2,488
FR12	0170	2	0,106	1,043	1,347	2,325	1,091	1,455	2,607	1,603	3,044
	0208	2	0,106	1,146	1,565	2,969	1,206	1,708	3,362	1,911	3,994
FR13	0261	2	0,159	1,683	2,167	3,662	1,746	2,311	4,034	2,505	4,603
	0325	2	0,159	1,944	2,590	4,664	2,021	2,765	5,109	2,993	5,769
FR14	0385	2	0,159	2,204	3,020	5,732	2,298	3,238	6,306	3,531	7,185
	0416	2	0,159	2,343	3,255	6,336	2,447	3,496	6,983	3,826	7,989
FR15	0460	2	0,239	2,764	3,632	6,385	2,875	3,886	7,041	4,225	8,034
	0502	2	0,239	2,935	3,911	7,059	3,058	4,196	7,806	4,581	8,957
FR16	0590	2	0,239	3,305	4,526	8,589	3,445	4,840	9,392	5,244	10,558
	0650	2	0,318	3,899	5,203	9,414	4,053	5,552	10,305	6,009	11,628
FR17	0750	2	0,318	4,333	5,923	11,215	4,515	6,343	12,320	6,907	14,005
	0820	2	0,318	4,649	6,455	12,592	4,852	6,928	13,862	7,574	15,831
FR18	1150	2	0,424	5,220	6,987	12,662	5,441	7,494	13,976	8,171	15,969

LV7000-3 ECODESIGN - LV7000-3 DRIVE TYPE RELATIVE LOSSES IN %



LV7000-3 Drive Type Relative Losses in % > FR 230V									
Frame	Drive Type LV7000-3 xxxx	Relative losses [%] (0;25)	Relative losses [%] (0;50)	Relative losses [%] (0;100)	Relative losses [%] (50;25)	Relative losses [%] (50;50)	Relative losses [%] (50;100)	Relative losses [%] (90;50)	Relative losses [%] (90;100)
FR4	0003	2,56%	2,75%	3,22%	2,62%	2,90%	3,54%	3,09%	4,01%
	0004	1,93%	2,12%	2,56%	1,99%	2,25%	2,88%	2,44%	3,37%
	0007	1,62%	1,83%	2,32%	1,69%	1,98%	2,69%	2,20%	3,30%
	0008	1,50%	1,72%	2,24%	1,57%	1,88%	2,65%	2,13%	3,34%
	0011	1,33%	1,57%	2,16%	1,39%	1,72%	2,55%	1,96%	3,22%
	0012	1,29%	1,54%	2,17%	1,36%	1,71%	2,60%	1,96%	3,33%
FR5	0017	1,25%	1,49%	2,09%	1,30%	1,61%	2,38%	1,78%	2,84%
	0025	0,93%	1,21%	2,14%	0,98%	1,35%	2,53%	1,55%	3,18%
FR6	0031	0,90%	1,21%	2,27%	0,96%	1,36%	2,71%	1,59%	3,48%
	0048	0,99%	1,35%	2,53%	1,08%	1,55%	3,07%	1,83%	3,91%
FR7	0061	1,02%	1,41%	2,72%	1,11%	1,63%	3,32%	1,94%	4,31%
	0075	0,82%	1,09%	1,97%	0,88%	1,24%	2,37%	1,45%	3,03%
FR8	0088	0,81%	1,10%	2,07%	0,88%	1,26%	2,50%	1,49%	3,24%
	0114	0,82%	1,15%	2,28%	0,89%	1,33%	2,79%	1,60%	3,71%
FR9	0140	0,92%	1,18%	2,00%	0,98%	1,34%	2,49%	1,61%	3,38%
	0170	0,83%	1,13%	2,08%	0,90%	1,27%	2,48%	1,49%	3,16%
FR10	0205	0,81%	1,13%	2,18%	0,88%	1,29%	2,63%	1,53%	3,42%
	0261	0,99%	1,31%	2,38%	1,05%	1,45%	2,73%	1,63%	3,23%
FR11	0300	0,85%	1,15%	2,18%	0,92%	1,29%	2,55%	1,49%	3,11%

LV7000-3 Drive Type Relative Losses in % > FR 400V									
Frame	Drive Type LV7000-3 xxxx	Relative losses [%] (0;25)	Relative losses [%] (0;50)	Relative losses [%] (0;100)	Relative losses [%] (50;25)	Relative losses [%] (50;50)	Relative losses [%] (50;100)	Relative losses [%] (90;50)	Relative losses [%] (90;100)
FR4	0003	1,48%	1,60%	1,87%	1,51%	1,67%	2,02%	1,76%	2,25%
	0004	1,25%	1,37%	1,66%	1,29%	1,45%	1,83%	1,55%	2,09%
	0005	1,08%	1,21%	1,52%	1,12%	1,29%	1,71%	1,41%	2,02%
	0007	0,94%	1,08%	1,42%	0,98%	1,17%	1,65%	1,31%	2,03%
	0009	0,88%	1,03%	1,38%	0,92%	1,11%	1,58%	1,23%	1,91%
	0012	0,68%	0,85%	1,39%	0,72%	0,94%	1,65%	1,09%	2,11%
FR5	0016	0,66%	0,83%	1,33%	0,69%	0,89%	1,50%	0,98%	1,77%
	0022	0,61%	0,80%	1,40%	0,64%	0,87%	1,61%	0,98%	1,95%
FR6	0031	0,59%	0,80%	1,52%	0,63%	0,89%	1,77%	1,02%	2,21%
	0038	0,69%	0,91%	1,62%	0,74%	1,02%	1,90%	1,17%	2,33%
FR7	0045	0,68%	0,92%	1,69%	0,73%	1,04%	2,00%	1,20%	2,48%
	0061	0,67%	0,92%	1,78%	0,72%	1,05%	2,12%	1,23%	2,68%
FR8	0072	0,57%	0,76%	1,38%	0,60%	0,84%	1,60%	0,96%	1,96%
	0087	0,53%	0,75%	1,46%	0,57%	0,84%	1,70%	0,97%	2,13%
FR9	0105	0,53%	0,76%	1,53%	0,57%	0,86%	1,82%	1,01%	2,32%
	0140	0,58%	0,77%	1,37%	0,62%	0,87%	1,65%	1,03%	2,17%
FR10	0168	0,48%	0,64%	1,19%	0,51%	0,73%	1,41%	0,85%	1,80%
	0205	0,46%	0,64%	1,24%	0,50%	0,73%	1,49%	0,87%	1,94%
FR11	0261	0,57%	0,76%	1,41%	0,61%	0,84%	1,61%	0,94%	1,89%
	0300	0,56%	0,76%	1,48%	0,59%	0,84%	1,69%	0,95%	2,00%
FR12	0385	0,58%	0,75%	1,32%	0,61%	0,83%	1,52%	0,93%	1,79%
	0460	0,55%	0,73%	1,37%	0,58%	0,81%	1,56%	0,91%	1,83%
FR13	0520	0,53%	0,73%	1,42%	0,56%	0,81%	1,62%	0,91%	1,91%
	0590	0,58%	0,76%	1,35%	0,61%	0,83%	1,53%	0,92%	1,77%
FR14	0650	0,56%	0,75%	1,38%	0,59%	0,82%	1,56%	0,92%	1,82%
	0730	0,54%	0,74%	1,42%	0,58%	0,82%	1,61%	0,91%	1,89%
FR15	0820	0,57%	0,75%	1,34%	0,60%	0,82%	1,52%	0,91%	1,77%
	0920	0,55%	0,73%	1,38%	0,58%	0,81%	1,57%	0,91%	1,83%
FR16	1030	0,53%	0,73%	1,42%	0,57%	0,81%	1,62%	0,91%	1,91%
	1150	0,54%	0,71%	1,29%	0,57%	0,79%	1,48%	0,89%	1,75%
FR17	1300	0,56%	0,74%	1,37%	0,59%	0,82%	1,56%	0,91%	1,82%
	1450	0,54%	0,74%	1,41%	0,58%	0,82%	1,61%	0,91%	1,88%

LV7000-3 Drive Type Relative Losses in % > FR 690V									
Frame	Drive Type LV7000-3 xxxx	Relative losses [%] (0;25)	Relative losses [%] (0;50)	Relative losses [%] (0;100)	Relative losses [%] (50;25)	Relative losses [%] (50;50)	Relative losses [%] (50;100)	Relative losses [%] (90;50)	Relative losses [%] (90;100)
FR6	0004	1,89%	2,04%	2,38%	1,91%	2,08%	2,45%	2,13%	2,56%
	0005	1,67%	1,82%	2,16%	1,68%	1,85%	2,23%	1,90%	2,35%
	0007	1,25%	1,43%	1,90%	1,27%	1,46%	1,99%	1,52%	2,15%
	0010	1,07%	1,24%	1,74%	1,08%	1,28%	1,84%	1,35%	2,02%
	0013	0,93%	1,11%	1,64%	0,94%	1,15%	1,75%	1,22%	1,97%
	0018	0,83%	1,02%	1,60%	0,85%	1,07%	1,72%	1,15%	1,99%
FR7	0022	0,78%	0,98%	1,61%	0,80%	1,03%	1,74%	1,13%	2,06%
	0027	0,75%	0,96%	1,65%	0,76%	1,01%	1,79%	1,12%	2,17%
FR8	0034	0,72%	0,96%	1,77%	0,74%	1,01%	1,91%	1,14%	2,37%
	0041	0,71%	0,91%	1,58%	0,73%	0,97%	1,73%	1,06%	2,02%
FR9	0052	0,64%	0,88%	1,70%	0,67%	0,94%	1,87%	1,05%	2,23%
	0062	0,76%	0,97%	1,60%	0,77%	1,01%	1,71%	1,08%	1,93%
FR10	0080	0,71%	0,94%	1,64%	0,73%	0,98%	1,76%	1,07%	2,03%
	0100	0,47%	0,62%	1,08%	0,50%	0,68%	1,25%	0,78%	1,57%
FR11	0125	0,57%	0,71%	1,12%	0,60%	0,76%	1,24%	0,82%	1,42%
	0144	0,54%	0,68%	1,13%	0,57%	0,73%	1,25%	0,80%	1,45%
FR12	0170	0,51%	0,66%	1,14%	0,54%	0,72%	1,28%	0,79%	1,50%
	0208	0,46%	0,63%	1,19%	0,49%	0,69%	1,35%	0,77%	1,61%
FR13	0261	0,54%	0,69%	1,17%	0,56%	0,74%	1,29%	0,80%	1,48%
	0325	0,50%	0,67%	1,20%	0,52%	0,71%	1,32%	0,77%	1,49%
FR14	0385	0,48%	0,66%	1,25%	0,50%	0,70%	1,37%	0,77%	1,56%
	0416	0,47%	0,65%	1,27%	0,49%	0,70%	1,40%	0,77%	1,61%
FR15	0460	0,50%	0,66%	1,16%	0,52%	0,71%	1,28%	0,77%	1,46%
	0502	0,49%	0,65%	1,18%	0,51%	0,70%	1,30%	0,76%	1,49%
FR16	0590	0,47%	0,64%	1,22%	0,49%	0,69%	1,33%	0,74%	1,50%
	0650	0,50%	0,67%	1,21%	0,52%	0,71%	1,33%	0,77%	1,50%
FR17	0750	0,48%	0,66%	1,25%	0,50%	0,71%	1,37%	0,77%	1,56%
	0820	0,47%	0,66%	1,28%	0,50%	0,71%	1,41%	0,77%	1,62%
FR18	1150	0,47%	0,64%	1,15%	0,49%	0,68%	1,27%	0,74%	1,45%