ICE-CEE Protection Relay LIST

TYPE	Description	Functions													Drawing	Case
AMS 7001	Digital Automation/Control Device (2U)	34	27	59	83	91									30A5	R3
AMS 7002	Digital Automation/Control & Measuring Device (1U+1I)	34	27	59											16A5	R3
BAT 7001	Auxiliary Supply for Circuit Breakers & Protection														19A4	R2
CMS 7003	Digital Instrumentation Device (3I+2U)	32	37	51											05A2	R4
CMS 7004	Digital Instrumentation Device (3I+3U)	32	37	51											03A7	R4
DMS 7001	Digital Generator Differential Protection	87G													28A6	R4
DMS 7002	Digital Transformer Differential Protection	87T													28A8	R4
DTM 7033	3 Phase Generator Differential Protection	87G													9936	R3
DTT 7031	3 Phase Transformer Differential Protection	87T													9321	R4
FTT 7111	Overfluxing Relay	24													9827	R2
GMS 7001	Multi-Function Digital Generator Protection (3I+3V)	21	24	27	32-1	32-2	40	46	49	51	59	59N	81		22A3	R4
GMSH 7001	Multi-Function Digital Generator Protection (3I+2U+Io)	21	24	27	32-1	32-2	40	46	49	51	59	64	81		15A7	R4
GMSV 7001	Multi-Function Digital Generator Protection (3I+2U+Uo)	21	24	27	32-1	32-2	40	46	49	51	59	59N	81		20A9	R4
GMS 7002	Multi-Function Digital Synchronous Motor Protection (3I+3V)	24	27	32	46	49	50	51LR	55	59	59N	81			26A3	R4
GMSH 7002	Multi-Function Digital Synchronous Motor Protection (3I+2V+Io)	24	27	32	46	49	50	51LR	55	59	64	81			26A4	R4
GTM 7111	Out of Step Protection for Synchronous Machines	40	78	(55)											9774	R2
HDG 7020	Under & Over Frequency Relay	81													9887	R2
IAGB 7012	DC System Earth Fault Protection	64													9951	R1
IAG 7014	Restricted Earth Fault Relay	50N	64R	87											9689	R2
IAG 7034	3 Phase High Impedance Differential Protection	87													9671	R3
ICF 7001	FiP Communications Interface														12A7	R3
IMM 7960	Multi-Function Motor Protection	37	46	48	49	50	50N	51N	51LR						25A4	R2
IMM 7990	Multi-Function Motor Protection	37	46	48	49	50	50N	51N	51LR	66					9987	R3
IMM 8001	Multi-Function Motor Protection	26	46	48	49	50	51	51N	51LR	66	37I	37P	27	59		
IMM 8002	Multi-Function Motor Protection	26	46	48	49	50	51	51N	51LR	66	37I	37P	27	59		
ITD 7111	Directional Overcurrent - Definite Time - 1 Phase	67													9737	R2
~~ITD 7112~~	~~Directional Earth Fault - Definite Time [생산중단, RMSD 7912로 대체]~~	67N													9298	R2
ITG 7114	Definite Time Earth Fault - De-sensitised to 3rd Harmonic															R2
ITG 7116	1 Phase Overcurrent or Earth Fault - Definite Time - with High Set	50	51												9973	R2
ITG 7118	1 Phase Undercurrent - Definite Time	37													9450	R1
ITG 7166	3 Phase Overcurrent - Definite Time - with High Set	50	51												9912	R2

TYPE	Description	Functions													Drawing	Case
ITG 7172	Accelerated Selective Protection	50	51												9611	R3
ITG 7173	Accelerated Selective Protection	50	51												9691	R3
ITG 7196	3 Phase Overcurrent & Earth Fault - Definite Time - with High Sets	50	50N	51	51N										9977	R3
ITG 7216	1 Phase Overcurrent or Earth Fault - Normal Inverse - with High Set	50	51												9974	R2
ITG 7266	3 Phase Overcurrent - Normal Inverse - with High Set	50	51												9918	R2
ITG 7305	1 Phase Overcurrent or Earth Fault - Very Inverse	51	51N												9922	R2
ITG 7316	1 Phase Overcurrent or Earth Fault - Very Inverse - with High Set	50	51												9975	R2
ITG 7366	3 Phase Overcurrent - Very Inverse - with High Set	50	51												9924	R2
ITG 7396	3 Phase Overcurrent & Earth Fault - Very Inverse - with High Sets	50	50N	51	51N										9979	R3
ITG 7416	1 Phase Overcurrent or Earth Fault - Extremely Inverse - with High Set	50	51												9976	R2
ITG 7466	3 Phase Overcurrent - Extremely Inverse - with High Set	50	51												9930	R2
ITG 7496	3 Phase Overcurrent & Earth Fault - Extremely Inverse - with High Sets	50	50N	51	51N										9980	R3
ITH 7111	Sensitive Definite Time Earth Fault (supplied from CBCT)	64													8841	R1
ITI 7521	Negative Sequence Overcurrent	46													9684	R3
ITT 7610	Power Transformer Thermal Overload	49													9506	R3
ITV 7166	Voltage Restrained Overcurrent - 3 Phase - Definite Time	27	50V	51V											03A2	R3
ITV 7266	Voltage Restrained Overcurrent - 3 Phase - Normal Inverse	27	50V	51V											03A3	R3
ITV 7366	Voltage Restrained Overcurrent - 3 Phase - Very Inverse	27	50V	51V											03A4	R3
ITV 7466	Voltage Restrained Overcurrent - 3 Phase - Extremely Inverse	27	50V	51V											03A5	R3
NPI 800	**3-Phase Overcurrent, Earth Fault and Thermal (Recloser Optional)**	**49**	**50**	**50N**	**51**	**51N**	**(79)**									
NPID 800	**Directional 3-Phase Overcurrent and Earth Fault and Thermal (Recloser Optional)**	**49**	**67**	**67N**	**(79)**											
NPIH 800	**Earth Fault**	**50N**	**51N**													
NPIHD 800	**Directional Earth Fault**	**67N**														
NPU 800	**3-Phase Under/Over Voltage & Under/Over Frequency**	**27**	**59**	**81**												
NPUH 800	**Zero Sequence Overvoltage**	**59N**														
NPM 800	**Multi Function Motor Protection**	**37**	**46**	**48**	**49**	**50**	**51N**	**51LR**	**66**							
NPDT 620	**Transformer Differential Protection - 2-winding three-phase transformer**	**87T**														
NPDT 630	**Transformer Differential Protection - 3-winding three-phase transformer**	**87T**	**51N**	**64**												
NPG 800	**Generator Numerical Protection**	**21**	**24**	**27**	**32P**	**32RP**	**32Q**	**37P**	**37Q**	**40**	**46**	**49**	**50**	**51**		
		50V	**51V**	**59**	**59N**	**64**	**81U**	**81O**	**50BF**	**86**						
NPW 800	**Numerical Power Protection**	**32P**	**32Q**	**37P**	**37Q**	**27**	**59**	**59N**	**78**	**81U**	**81O**	**86**				
PMG 7043	Disturbance Analyser: 4 Current Inputs + 2 Programmable Levels														30A6	R3
PMG 7044	Disturbance Analyser: 4 Voltage Inputs + 2 Programmable Levels														30A7	R2
PTG 7113	Underpower	32	37												9697	R2

TYPE	Description	Functions													Drawing	Case
RAD 7004	Aux Trip with 4 H/R Contacts and H/R flag	30	86	94											9837	R1
RAD 7006	Aux Trip with 6 H/R Contacts and H/R flag															R2
RAD 7008	Aux Trip with 8 H/R Contacts and H/R flag															R2
RAD 7010	Aux Trip with 10 H/R Contacts and H/R flag															R2
RADE 7010	Aux Trip + 10 Elec H/R or Elec/R Contacts	30	86	94											9838	R2
RMS 711	Multi-curve 1 Phase Overcurrent or Earth Fault														31A1	R2
RMS 761	Multi-curve 3 Phase Overcurrent														31A2	R2
RMS 771	Multi-curve 2 Phase Overcurrent and Earth Fault														31A3	R2
RMS 791	Multi-curve 3 Phase Overcurrent and Earth Fault															R3
RMS 7992	Multi-curve 3 Phase Overcurrent & Earth Fault with High Sets	50	50N	51	51N										08A5	R3
RMSA 7992	Multi-curve 3 Ph Overcurrent & Earth Fault with High Sets without Aux Supply	50	50N	51	51N										07A9	R4
RMSD 7912	Multi-curve Directional Earth Fault	67N													07A8	R3
RMSD 7921	Multi-curve 2 Phase Directional Overcurrent	67													05A8	R3
RMSR 7992	Multi-curve 3 Ph O/C & Directional (selectable) E/F + High Sets	50	50N	51	51N	67N	68								13A3	R4
RMST 7992	Multi-curve 3 Phase Overcurrent + Easrth Fault with High Sets + Thermal	49	50	50N	51	51N									10A3	R3
SOLKOR RF 5	Pilot Wire Differential for 5kV insulation	87													9878	R4
SOLKOR RF 15	Pilot Wire Differential for 15kV insulation	87													9878	R4
STEP 7040	Temperature Supervision (4 channels)	26	38	49											9720	R4
STEP 7060	Temperature Supervision (6 channels)	26	38	49											9721	R4
STS 7041	Check Synchronising	25													9848	R3
TAA 7010	DC Auxiliary 4 contacts	AUX													9666	R1
TAA 7020	DC Auxiliary (2 elements, each 2 contacts)	AUX													9668	R1
TAA 7030	DC Auxiliary (3 elements, each 3 contacts)	AUX													9011	R2
TAA 7040	DC Auxiliary (4 elements, each 2 contacts)	AUX													9006	R2
TAX 7031	Trip circuit supervision	74													9761	R1
TLC 7000	Remote control handset for CMS														05A6	
TMS 711	1 Phase Multicurve Under & Over Voltage														31A6	R2
TMS 714	Zero Sequence Multicurve Over Voltage Relay														31A7	R2
TMS 761	3 Phase Multicurve Under & Over Voltage														31A8	R2
TMS 7003	3 Phase Digital Multicurve Under & Over Voltage Relay (3U)	27	27P	47	59	59N									20A1	R3
TMS 7004	3 Phase Digital Multicurve Under & Over Voltage Relay (3V)	27	27P	47	59	59N									20A2	R3
TTB 7011	Instantaneous DC Overvoltage	59DC													9652	R1
TTB 7013	Instantaneous DC Undervoltage	27DC													9653	R1
TTB 7025	Ubder and Over-excitation	27DC													9653	R1

TYPE	Description	Functions													Drawing	Case
TTB 7026	2 Level Under-excitation	12	27DC	37DC	40										9984	R2
TTE 7015	Rotor Earth Fault	64													9676/9801	R2
TTE 7017	Rotor Earth Fault	64													9806	R2
TTG 7011	Instantaneous AC Overvoltage	59													8114	R2
TTG 7112	Instantaneous AC Undervoltage	27													8727	R1
TTG 7113	Instantaneous AC Undervoltage	27													8116	R1
TTG 7032	Instantaneous 3 Phase Undervoltage	27														R2
TTG 7033	Instantaneous AC 3 Phase Undervoltage	27													8470	R2
TTG 7034	Neutral Voltage Displacement Relay - Instantaneous	27													8470	R2
TTG 7111	Definite Time Overvoltage	59													8113	R1
TTG 7112	Definite Time Undervoltage	27													8728	R1
TTG 7113	Definite Time Undervoltage	27													8115	R1
TTG 7114	Neutral Displacement or Zero Sequence Overvoltage	59N	64												9383	R2
TTG 7123	Definite Time 2 Phase Undervoltage	27													8173	R2
TTG 7125	2 x(Indepentent)Element Undervoltage	27													8772	R2
TTG 7132	Definite Time 3 Phase Undervoltage	27													9829	R2
TTG 7133	Definite Time 3 Phase Undervoltage	27													8172	R2
TTG 7134	Neutral Displacement or Zero Sequence Overvoltage	59N	64												9749	R2
TTG 7166	Definite Time 3 Phase Under & Over Voltage	27	59												17A2	R2
TTGB 7031	Voltage Balance	60													9889	R3
TTGD 7112	Positive Sequence Definite Time Undervoltage	27	47												9042	R2
TTR 7146	Auto Reclose	79													9826	R3
TTR T7136	Auto-Reclosing Device	79													9828	R3
TTT 7111	Timer (delay on operation)	2	62												8878	R1
TTT 7112	Timer (delay on drop off)	2	62												8887	R1
TTT 7114	Timer	2	62												9738	R1
TTT 7118	Timer (extended range)	2	62												9738	R1
TTT 7121	2 Unit Timer (delay on operation)	2	62												8864	R1
WTGA 7131	3 Phase Reverse Power	32													9083	R3
WTGA 7132	3 Phase Overpower	32													9085	R3
WTGA 7133	3 Phase Underpower	32	37												9087	R3
YTM 7111	Field Failure	40													9888	R2