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TRL-8nn ADDRESS TABLE			Function 03 Read; Function 06 Presetting									
Name	Address		Range	Explain			Initial	Unit	Read/Write			Note
	Decimal	Hexadecimal										
Electrical Parameter X_0 Minimum Setting	28	001C	0 to 20000	Channel 2 Electrical Parameter X_0 Minimum Setting			0		R			
	29	001D		Channel 3 Electrical Parameter X_0 Minimum Setting			0		R			
	30	001E		Channel 4 Electrical Parameter X_0 Minimum Setting			0		R			
	31	001F		Channel 1 Analog Output Y_0 Minimum Setting			0		R			
Analog Output Y_0 Minimum Setting	32	0020	0 to 20000	Channel 2 Analog Output Y_0 Minimum Setting			0		R			
	33	0021		Channel 3 Analog Output Y_0 Minimum Setting			0		R			
	34	0022		Channel 4 Analog Output Y_0 Minimum Setting			0		R			
	35	0023		Channel 1 Electrical Parameter X_1 Middel Setting			0		R			0 is for 0 of quantity
Electrical Parameter X_1 Middel Setting	36	0024	0 to 20000 or 32000	Channel 2 Electrical Parameter X_1 Middel Setting			0		R			
	37	0025		Channel 3 Electrical Parameter X_1 Middel Setting			0		R			
	38	0026		Channel 4 Electrical Parameter X_1 Middel Setting			0		R			
	39	0027		Channel 1 Analog Output Y_1 Middel Setting			0		R			
Analog Output Y_1 Middel Setting	40	0028	0 to 20000 or 32000	Channel 2 Analog Output Y_1 Middel Setting			0		R			
	41	0029		Channel 3 Analog Output Y_1 Middel Setting			0		R			
	42	002A		Channel 4 Analog Output Y_1 Middel Setting			0		R			
	43	002B		Channel 1 Electrical Parameter X_2 Maximum Setting			0		R			0 is for 0 of quantity
Electrical Parameter X_2 Maximum Setting	44	002C	0 to 20000	Channel 2 Electrical Parameter X_2 Maximum Setting			0		R			
	45	002D		Channel 3 Electrical Parameter X_2 Maximum Setting			0		R			
	46	002E		Channel 4 Electrical Parameter X_2 Maximum Setting			0		R			
	47	002F		Channel 1 Analog Output Y_2 Maximum Setting			0		R			
Analog Output Y_2 Maximum Setting	48	0030	0 to 20000	Channel 2 Analog Output Y_2 Maximum Setting			0		R			
	49	0031		Channel 3 Analog Output Y_2 Maximum Setting			0		R			
	50	0032		Channel 4 Analog Output Y_2 Maximum Setting			0		R			
		0000		Alarm Output 1 Mask Flag			0		R/W			
		0000		Alarm Output 2 Mask Flag			0		R/W			
		0000		Alarm Output 3 Mask Flag			0		R/W			
		0000		Alarm Output 4 Mask Flag			0		R/W			
		0000		Over Frequency Alarm					R/W			
		0000		Under Frequency Alarm					R/W			
		0000		Over Phase Voltage Alarm					R/W			
		0000		Under Phase Voltage Alarm					R/W			
		0000		Over Line Voltage Alarm					R/W			
		0000		Under Line Voltage Alarm					R/W			
		0000		Over Current Alarm					R/W			
		0000		Over Null Current Alarm					R/W			
		0000		Over Current Vector sum Alarm					R/W			
		0000		Over Null Current - Current Vector sum					R/W			
		0000		Over Active Power Alarm					R/W			
		0000		Over Reactive Power Alarm					R/W			
		0000		Over THD Phase Voltage Alarm					R/W			
		0000		Over THD Line Voltage Alarm					R/W			
		0000		Over THD Current Alarm					R/W			

TRL-8nn ADDRESS TABLE			Function 03 Read									
	Decimal	Hexadecimal	Range	Explain			Initial	Unit	Read/Write			
Alarm Flags	51	0033	0000h TO FFFFh	Alarm Flags			0		R			
EMU	52	0034	0000h TO FFFFh	EMU Status Register			0		R			
PDF	53	0035	0000h TO FFFFh	Power Direction Flag			0		R			
V Ratio Scale	54	0036	1,10,100,1000	Voltage Ratio Scale			0		R			QtSign,QcSign,QbSign,QaSign,PtSign,PcSign,PbSign,PaSign
I Ratio Scale	55	0037	1,10,100,1000	Current Ratio Scale			0		R			
P Ratio Scale	56	0038	1,10,100,1000	Power Ratio Scale			0		R			
F	57	0039	0 TO 32767	Frequency			F / 100	5000	Hz	R		
VL1	58	003A	0 TO 32767	Phase L1 Voltage			VL1 / V Ratio Scale	0	V	R		
VL2	59	003B	0 TO 32767	Phase L2 Voltage			VL2 / V Ratio Scale	0	V	R		
VL3	60	003C	0 TO 32767	Phase L3 Voltage			VL3 / V Ratio Scale	0	V	R		
VL1L2	61	003D	0 TO 32767	Phase L1 vs Phase L2 Voltage			VL1VL2 / V Ratio Scale	0	V	R		
VL1L3	62	003E	0 TO 32767	Phase L1 vs Phase L3 Voltage			VL1VL3 / V Ratio Scale	0	V	R		
VL2L3	63	003F	0 TO 32767	Phase L2 vs Phase L3 Voltage			VL1VL2 / V Ratio Scale	0	V	R		
VL1L2L3	64	0040	0 TO 32767	Vector Sum Phase Voltage			VL1VL2VL3 / V Ratio Scale	0	V	R		
IL1	65	0041	-32768 TO 32767	Phase L1 Current			IL1 / I Ratio Scale	0	A	R		
IL2	66	0042	-32768 TO 32767	Phase L2 Current			IL2 / I Ratio Scale	0	A	R		
IL3	67	0043	-32768 TO 32767	Phase L3 Current			IL3 / I Ratio Scale	0	A	R		
IL1L2L3	68	0044	-32768 TO 32767	Vector Sum Phase Current			IL1L2L3 / I Ratio Scale	0	A	R		
ILN	69	0045	-32768 TO 32767	Null Current			ILN / I Ratio Scale	0	A	R		
PL1	70	0046	-32768 TO 32767	Phase L1 Active Power			PL1 / P Ratio Scale	0	W	R		
PL2	71	0047	-32768 TO 32768	Phase L2 Active Power			PL2 / P Ratio Scale	0	W	R		
PL3	72	0048	-32768 TO 32769	Phase L3 Active Power			PL3 / P Ratio Scale	0	W	R		
PLT	73	0049	-32768 TO 32770	Total Active Power			PLT / P Ratio Scale	0	W	R		
QL1	74	004A	-32768 TO 32771	Phase L1 Reactive Power			QL1 / P Ratio Scale	0	VAR	R		
QL2	75	004B	-32768 TO 32772	Phase L2 Reactive Power			QL2 / P Ratio Scale	0	VAR	R		
QL3	76	004C	-32768 TO 32773	Phase L3 Reactive Power			QL3 / P Ratio Scale	0	VAR	R		
QLT	77	004D	-32768 TO 32774	Total Reactive Power			QLT / P Ratio Scale	0	VAR	R		
SL1	78	004E	0 TO 32767	Phase L1 Apparent Power			SL1 / P Ratio Scale	0	VA	R		
SL2	79	004F	0 TO 32767	Phase L2 Apparent Power			SL2 / P Ratio Scale	0	VA	R		
SL3	80	0050	0 TO 32767	Phase L3 Apparent Power			SL3 / P Ratio Scale	0	VA	R		
SLT	81	0051	0 TO 32767	Total Apparent Power			SLT / P Ratio Scale	0	VA	R		
PFL1	82	0052	-100 TO 100	Phase L1 Power Factor			PFL1 / 100	100		R		
PFL2	83	0053	-100 TO 100	Phase L2 Power Factor			PFL2 / 100	100		R		
PFL3	84	0054	-100 TO 100	Phase L3 Power Factor			PFL3 / 100	100		R		
PFLT	85	0055	-100 TO 100	Total Power Factor			PFLT / 100	100		R		
PAL1	86	0056	-1800 TO +1800	V - I L1 Phase Angle			PAL1 / 10	0	Deg.	R		
PAL2	87	0057	-1800 TO +1800	V - I L2 Phase Angle			PAL2 / 10	0	Deg.	R		
PAL3	88	0058	-1800 TO +1800	V - I L3 Phase Angle			PAL3 / 10	0	Deg.	R		
VL12PA	89	0059	0 TO 3600	Voltage L1 L2 Phase Angle			VL12PA / 10	1200	V	R		
VL13PA	90	005A	0 TO 3600	Voltage L1 L3 Phase Angle			VL13PA / 10	1200	V	R		
VL23PA	91	005B	0 TO 3600	Voltage L2 L3 Phase Angle			VL23PA / 10	1200	V	R		

TRL-8nn ADDRESS TABLE			Function 03 Read; Function 06 Presetting		Initial	Unit	Read/Write				Note
Name	Address		Range	Explain							
	Decimal	Hexadecimal									
reserve	92	005C									
reserve	93	005D									
reserve	94	005E									
reserve	95	005F									
reserve	96	0060									
reserve	97	0061									
reserve	98	0062									
reserve	99	0063									
The Value of Registers 100 to 146 are normalized to 10000				Register Value x (nominal Value) / 10000							
RMS_V_R_MA	100	0064	0 TO 32767	Input Voltage	0	—	R				
RMS_V_L1_R_MA	101	0065	0 TO 32767	V L1-N	0	—	R				
RMS_V_L2_R_MA	102	0066	0 TO 32767	V L2-N	0	—	R				
RMS_V_L3_R_MA	103	0067	0 TO 32767	V L3-N	0	—	R				
RMS_V_L1L2_R_MA	104	0068	0 TO 32767	V L1-L2	0	—	R				
RMS_V_L1L3_R_MA	105	0069	0 TO 32767	V L1-L3	0	—	R				
RMS_V_L2L3_R_MA	106	006A	0 TO 32767	V L2-L3	0	—	R				
RMS_I_R_MA	107	006B	0 TO 32767	Input Current	0	—	R				
RMS_I_L1_R_MA	108	006C	0 TO 32767	I L1	0	—	R				
RMS_I_L2_R_MA	109	006D	0 TO 32767	I L2	0	—	R				
RMS_I_L3_R_MA	110	006E	0 TO 32767	I L3	0	—	R				
POWER_P_L1_R_MA	111	006F	-32767 TO 32767	Active Total Power of System	0	—	R				
POWER_P_L1_R_MA	112	0070	-32767 TO 32767	Active Power of L1	0	—	R				
POWER_P_L2_R_MA	113	0071	-32767 TO 32767	Active Power of L2	0	—	R				
POWER_P_L3_R_MA	114	0072	-32767 TO 32767	Active Power of L3	0	—	R				
POWER_Q_L1_R_MA	115	0073	-32767 TO 32767	Reactive Total Power of System	0	—	R				
POWER_Q_L1_R_MA	116	0074	-32767 TO 32767	Reactive Power of L1	0	—	R				
POWER_Q_L2_R_MA	117	0075	-32767 TO 32767	Reactive Power of L2	0	—	R				
POWER_Q_L3_R_MA	118	0076	-32767 TO 32767	Reactive Power of L3	0	—	R				
POWER_FACTOR_L1_R_MA	119	0077	-10000 TO 10000	Active Power Factor Total	0	—	R				
POWER_FACTOR_L1_R_MA	120	0078	-10000 TO 10000	Active Power Factor L1	0	—	R				
POWER_FACTOR_L2_R_MA	121	0079	-10000 TO 10000	Active Power Factor L2	0	—	R				
POWER_FACTOR_L3_R_MA	122	007A	-10000 TO 10000	Active Power Factor L3	0	—	R				
Q_POWER_FACTOR_L1_R_MA	123	007B	-10000 TO 10000	Reactive Power Factor Total	0	—	R				
Q_POWER_FACTOR_L1_R_MA	124	007C	-10000 TO 10000	Reactive Power Factor L1	0	—	R				
Q_POWER_FACTOR_L2_R_MA	125	007D	-10000 TO 10000	Reactive Power Factor L2	0	—	R				
Q_POWER_FACTOR_L3_R_MA	126	007E	-10000 TO 10000	Reactive Power Factor L3	0	—	R				
FREQUENCY_R_MA	127	007F	0 TO 50000	Frequency of the system	50000	Hz	R				
POWER_S_L1_R_MA	128	0080	0 TO 32767	Apparent Power of the System	0	%	R				
POWER_S_L1_R_MA	129	0081	0 TO 32767	Apparent Power of L1	0	%	R				
POWER_S_L2_R_MA	130	0082	0 TO 32767	Apparent Power of L2	0	%	R				
POWER_S_L3_R_MA	131	0083	0 TO 32767	Apparent Power of L3	0	%	R				
I_AVG_PHASE_R_MA	132	0084	0 TO 32767	Average value of the currents	0	%	R				
I_AVG_S_PHASE_R_MA	133	0085	-32767 TO 32767	Average value of the currents & sign of the active power	0	%	R				
L_POWER_FACTOR_L1_R_MA	134	0086	-10000 TO 10000	Power factor of the System LF = sgnQ · (1- PF)	0	%	R				
L_POWER_FACTOR_L1_R_MA	135	0087	-10000 TO 10000	Power factor LF L1 = sgnQ1 · (1- PF1)	0	%	R				
L_POWER_FACTOR_L2_R_MA	136	0088	-10000 TO 10000	Power factor LF L2 = sgnQ2 · (1- PF2)	0	%	R				
L_POWER_FACTOR_L3_R_MA	137	0089	-10000 TO 10000	Power factor LF L3 = sgnQ3 · (1- PF3)	0	%	R				
IB_15min_L1_R_MA	138	008A	0 TO 32767	RMS value of the current with wire setting range	0	%	R				
IB_15min_L1_R_MA	139	008B	0 TO 32767	RMS value of the current L1 with wire setting range	0	%	R				
IB_15min_L2_R_MA	140	008C	0 TO 32767	RMS value of the current L2 with wire setting range	0	%	R				
IB_15min_L3_R_MA	141	008D	0 TO 32767	RMS value of the current L3 with wire setting range	0	%	R				
BS_15min_L1_R_MA	142	008E	0 TO 32767	Slave pointer function for the measurement of the RMS value IB	0	%	R				
BS_15min_L1_R_MA	143	008F	0 TO 32767	Slave pointer function for the measurement of the RMS value IB L1	0	%	R				
BS_15min_L2_R_MA	144	0090	0 TO 32767	Slave pointer function for the measurement of the RMS value IB L2	0	%	R				
BS_15min_L3_R_MA	145	0091	0 TO 32767	Slave pointer function for the measurement of the RMS value IB L3	0	%	R				
V_AVG_PHASE_R_MA	146	0092	0 TO 32767	Average value of the Phase Voltages	0	%	R				
reserve	147	0093									
reserve	148	0094									
reserve	149	0095									
reserve	150	0096									
reserve	151	0097									
reserve	152	0098									
reserve	153	0099									
reserve	154	009A									
reserve	155	009B									
reserve	156	009C									
reserve	157	009D									
reserve	158	009E									
reserve	159	009F									
reserve	160	00A0									
reserve	161	00A1									
reserve	162	00A2									
reserve	163	00A3									
reserve	164	00A4									
reserve	165	00A5									
reserve	170	00AA									
reserve	171	00AB									
reserve	172	00AC									
reserve	173	00AD									

TRL-8nn ADDRESS TABLE			Function 03 Read; Function 06 Presetting									
Name	Address		Range	Explain			Initial	Unit	Read/Write		Note	
	Decimal	Hexadecimal										
reserve	174	00AE										
reserve	175	00AF										
reserve	176	00B0										
reserve	177	00B1										
reserve	178	00B2										
reserve	179	00B3										
reserve	180	00B4										
reserve	181	00B5										
reserve	182	00B6										
reserve	183	00B7										
reserve	184	00B8										
reserve	185	00B9										
reserve	186	00BA										
reserve	187	00BB										
reserve	188	00BC										
reserve	189	00BD										
reserve	190	00BE										
reserve	191	00BF										
reserve	192	00C0										
reserve	193	00C1										
reserve	194	00C2										
reserve	195	00C3										
En_Err_Cnt	240			Energy_Error_Counter								
WATCHDOG	241			WATCHDOG COUNTER								
	242			software								
	243			external								
	244			brownout								
				power on								

TRL-8nn ADDRESS TABLE			Function 06 Presetting									
Name	Address		Range	Explain			Initial	Unit	Read/Write		Note	
Analog Output Up Down	48	0030h	0 to 12000 or -5000 to 7000	Analog Output Calibration Up Down Change					W		0155h Decrease Channel 1 (341d)	
											01AAh Increase Channel 1 (426d)	
											0255h Decrease Channel 2 (597d)	
											02AAh Increase Channel 2 (682d)	
											0355h Decrease Channel 3 (853d)	
											03AAh Increase Channel 3 (938d)	
Analog Output Quantity Edit	50	0032h	0 to 10000	Channel 1 Analog Output Edit					W		0455h Decrease Channel 4 (1109d)	
	51	0033h		Channel 2 Analog Output Edit					W		04AAh Increase Channel 4 (1194d)	
	52	0034h		Channel 3 Analog Output Edit					W		available in Edit Mode only	
	53	0035h		Channel 4 Analog Output Edit					W			
	54	0036h		Channel 1 to 4 Analog Output Edit					W			

100	0064h	00h	Clear Calibration Data				W	Clear All Calibration data for input				
		01h	RMS Offset Calibration Command				W					
		02h	RMS Voltage Gain Calibration Clear				W					
		03h	RMS Current Gain Calibration Clear				W					
		04h	Power Gain Calibration Clear				W					
		0Ch	RMS Voltage Gain Calibration Command				W					
		0Dh	RMS Current Gain Calibration Command				W					
		0Eh	Power Gain Calibration Command				W					
		(Phase*100h) or (00F1h)	Voltage Calibration Register + 1				W					
		(Phase*100h) or (00FAh)	Voltage Calibration Register + 10				W					
		(Phase*100h) or (00E1h)	Current Calibration Register + 1				W					
		(Phase*100h) or (00EAh)	Voltage Calibration Register + 10				W					
		(Phase*100h) or (00D1h)	Voltage Calibration Register - 1				W					
		(Phase*100h) or (00DAh)	Voltage Calibration Register - 10				W					
		(Phase*100h) or (00C1h)	Current Calibration Register - 1				W					
		(Phase*100h) or (00CAh)	Voltage Calibration Register - 10				W					
		(Phase*100h) or (00B1h)	Power Calibration Register + 1				W					
		(Phase*100h) or (00BAh)	Power Calibration Register + 10				W					
		(Phase*100h) or (00A1h)	Power Calibration Register - 1				W					
		(Phase*100h) or (00AAh)	Power Calibration Register - 10				W					