TPM-01E/ES/ESH - TPM-04/04SH - Register Table								TPM-04SH-DL
ADDRESS (DEC)	ADDRESS (HEX)	Parameter	Data Type	Feature	Multiplier	Unit	Explanation	Feature
4000	FA0	L1 Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4001	FA1	L2 Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4002	FA2	L3 Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4003	FA3	L1 Minimum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4004	FA4	L2 Minimum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4005	FA5	L3 Minimum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4006	FA6	L1 Maximum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4007	FA7	L2 Maximum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4008	FA8	L3 Maximum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4009	FA9	L1 Average Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4010	FAA	L2 Average Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4011	FAB	L3 Average Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4012	FAC	L12 Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4013	FAD	L23 Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4014	FAE	L31 Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4015	FAF	L12 Minimum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4016	FB0	L23 Minimum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4017	FB1	L31 Minimum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4018	FB2	L12 Maximum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4019	FB3	L23 Maximum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4020	FB4	L31 Maximum Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4021	FB5	L12 Average Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4022	FB6	L23 Average Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4023	FB7	L31 Average Voltage	Unsigned 16-bit	Read	Data * VTR * 0.1	V	0,0 .. Vmax	
4024	FB8	L1 Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4025	FB9	L2 Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4026	FBA	L3 Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4027	FBB	Neutral Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4028	FBC	Total L-N Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4029	FBD	L1 Maximum Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4030	FBE	L2 Maximum Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4031	FBF	L3 Maximum Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4032	FC0	Total Maximum Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4033	FC1	L1 Demand Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4034	FC2	L2 Demand Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4035	FC3	L3 Demand Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4036	FC4	L12 Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4037	FC5	L23 Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4038	FC6	L31 Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4039	FC7	Total L-L Current	Unsigned 16-bit	Read	Data * CTR * 0.001	A	0,000 .. Imax	
4040	FC8	L1 Frequency	Unsigned 16-bit	Read	Data * 0.01	Hz	45,00 .. 65,00	
4041	FC9	L2 Frequency	Unsigned 16-bit	Read	Data * 0.01	Hz	45,00 .. 65,00	
4042	FCA	L3 Frequency	Unsigned 16-bit	Read	Data * 0.01	Hz	45,00 .. 65,00	
4043	FCB	L1 Power Factor	Sgned 16-bt	Read	Data * 0.001	X	-1,000 .. 1,000	
4044	FCC	L2 Power Factor	Sgned 16-bt	Read	Data * 0.001	X	-1,000 .. 1,000	
4045	FCD	L3 Power Factor	Sgned 16-bt	Read	Data * 0.001	X	-1,000 .. 1,000	
4046	FCE	Total Power Factor	Sgned 16-bt	Read	Data * 0.001	X	-1,000 .. 1,000	
4047	FCF	L1 Cosφ	Sgned 16-bt	Read	Data * 0.001	X	-1,000 .. 1,000	
4048	FD0	L2 Cosφ	Sgned 16-bt	Read	Data * 0.001	X	-1,000 .. 1,000	
4049	FD1	L3 Cosφ	Sgned 16-bt	Read	Data * 0.001	X	-1,000 .. 1,000	
4050	FD2	Unbalance Voltage	Unsigned 16-bit	Read	Data * 0.01	X	0 .. 100	
4051	FD3	Unbalance Current	Unsigned 16-bit	Read	Data * 0.01	X	0 .. 100	
4052	FD4	Current Transformer Rato	Unsigned 16-bit	Read	Data	X	1..1000	Read/Write
4053	FD5	Voltage Transformer Rato	Unsigned 16-bit	Read	Data * 0.1	X	1,0 .. 999,9	Read/Write
4054	FD6	Modbus Baudrate	Unsigned 16-bit	Read	Data	X	1200 .. 38400	Read/Write
4055	FD7	Modbus StopBt	Unsigned 16-bit	Read	Data	X	1 .. 2	Read/Write
4056	FD8	Modbus Party	Unsigned 16-bit	Read	Data	X	1 .. 3	Read/Write
4057	FD9	Modbus ID	Unsigned 16-bit	Read	Data	X	1 .. 247	Read/Write
4058	FDA	Dgtal In State	Unsigned 16-bit	Read	Data	X	0 .. 1	
4059	FDB	Out1 Relay State	Unsigned 16-bit	Read	Data	X	0 .. 1	
4060	FDC	Out2 Relay State	Unsigned 16-bit	Read	Data	X	0 .. 1	
4061	FDD	Desred Calbraton Voltage Value	Unsigned 16-bit	Read	Data * 0.01	X	200 .. 250	
4062	FDE	Desred Calbraton Voltage Error Value	Unsigned 16-bit	Read	Data * 0.001	X	0,1 .. 20	
4063	FDF	Desred Calbraton Current Value	Unsigned 16-bit	Read	Data * 0.0001	X	0,1 .. 3	
4064	FE0	Desred Calbraton Current Error Value	Unsigned 16-bit	Read	Data * 0.001	X	0,1 .. 20	
4065	FE1	Seral No H2	Unsigned 16-bit	Read	Data	X	0 .. 5012	
4066	FE2	Seral No H1	Unsigned 16-bit	Read	Data	X	0 .. 3123	
4067	FE3	Seral No L	Unsigned 16-bit	Read	Data	X	0 .. 5959	
4068	FE4	VERSIYON	Unsigned 16-bit	Read	Data * 0.001	X	0 .. 9,999	
4069	FE5	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	
4070	FE6	Out1 Relay Control Parameter	Unsigned 16-bit	Read	Data	X	0 .. 9	Read/Write
4071	FE7	Out2 Relay Control Parameter	Unsigned 16-bit	Read	Data	X	0 .. 9	Read/Write
4072	FE8	Out1 Relay Control Functon ULn	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write
4073	FE9	Out1 Relay Control Value Uln	Unsigned 16-bit	Read	Data * 0.1	X	10 .. 500	Read/Write
4074	FEA	Out1 Relay Control Delay Uln	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write
4075	FEB	Out1 Relay Control Hysteress Uln	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write
4076	FEC	Out1 Relay Control Functon ILn	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write
4077	FED	Out1 Relay Control Value ILn	Unsigned 16-bit	Read	Data * 0.001	X	0,1 .. 5	Read/Write

4078	FEE	Out1 Relay Control Delay ILn	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4079	FEF	Out1 Relay Control Hysteress ILn	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4080	FF0	Out1 Relay Control Functon ILt	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4081	FF1	Out1 Relay Control Value ILt	Unsigned 16-bit	Read	Data * 0.001	X	0,1 .. 5	Read/Write	
4082	FF2	Out1 Relay Control Delay ILt	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4083	FF3	Out1 Relay Control Hysteress ILt	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4084	FF4	Out1 Relay Control Functon thdU	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4085	FF5	Out1 Relay Control Value thdU	Unsigned 16-bit	Read	Data * 0.01	X	1 .. 50	Read/Write	
4086	FF6	Out1 Relay Control Delay thdU	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4087	FF7	Out1 Relay Control Hysteress thdU	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4088	FF8	Out1 Relay Control Functon thdI	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4089	FF9	Out1 Relay Control Value thdI	Unsigned 16-bit	Read	Data * 0.01	X	1 .. 50	Read/Write	
4090	FFA	Out1 Relay Control Delay thdI	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4091	FFB	Out1 Relay Control Hysteress thdI	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4092	FFC	Out1 Relay Control Functon PF	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4093	FFD	Out1 Relay Control Value PF	Unsigned 16-bit	Read	Data * 0.001	X	0,50 .. 0,99	Read/Write	
4094	FFE	Out1 Relay Control Delay PF	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4095	FFF	Out1 Relay Control Hysteress PF	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4096	1000	Out1 Relay Control Functon U Un	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4097	1001	Out1 Relay Control Value U Un	Unsigned 16-bit	Read	Data * 0.01	X	1 .. 50	Read/Write	
4098	1002	Out1 Relay Control Delay U Un	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4099	1003	Out1 Relay Control Hysteress U Un	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4100	1004	Out1 Relay Control Functon I Un	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4101	1005	Out1 Relay Control Value I Un	Unsigned 16-bit	Read	Data * 0.01	X	1 .. 50	Read/Write	
4102	1006	Out1 Relay Control Delay I Un	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4103	1007	Out1 Relay Control Hysteress I Un	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4104	1008	Out1 Relay Control Functon dI n	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4105	1009	Out1 Relay Control Delay dI n	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4106	100A	Out2 Relay Control Functon UIn	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4107	100B	Out2 Relay Control Value UIn	Unsigned 16-bit	Read	Data * 0.1	X	10 .. 500	Read/Write	
4108	100C	Out2 Relay Control Delay UIn	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4109	100D	Out2 Relay Control Hysteress UIn	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4110	100E	Out2 Relay Control Functon ILn	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4111	100F	Out2 Relay Control Value ILn	Unsigned 16-bit	Read	Data * 0.001	X	0,1 .. 5	Read/Write	
4112	1010	Out2 Relay Control Delay ILn	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4113	1011	Out2 Relay Control Hysteress ILn	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4114	1012	Out2 Relay Control Functon ILt	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4115	1013	Out2 Relay Control Value ILt	Unsigned 16-bit	Read	Data * 0.001	X	0.1 .. 5	Read/Write	
4116	1014	Out2 Relay Control Delay ILt	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4117	1015	Out2 Relay Control Hysteress ILt	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4118	1016	Out2 Relay Control Functon thdU	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4119	1017	Out2 Relay Control Value thdU	Unsigned 16-bit	Read	Data * 0.01	X	1 .. 50	Read/Write	
4120	1018	Out2 Relay Control Delay thdU	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4121	1019	Out2 Relay Control Hysteress thdU	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4122	101A	Out2 Relay Control Functon thdI	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4123	101B	Out2 Relay Control Value thdI	Unsigned 16-bit	Read	Data * 0.01	X	1 .. 50	Read/Write	
4124	101C	Out2 Relay Control Delay thdI	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4125	101D	Out2 Relay Control Hysteress thdI	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4126	101E	Out2 Relay Control Functon PF	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4127	101F	Out2 Relay Control Value PF	Unsigned 16-bit	Read	Data * 0.001	X	0.50 .. 0.99	Read/Write	
4128	1020	Out2 Relay Control Delay PF	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4129	1021	Out2 Relay Control Hysteress PF	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4130	1022	Out2 Relay Control Functon U Un	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4131	1023	Out2 Relay Control Value U Un	Unsigned 16-bit	Read	Data * 0.01	X	1 .. 50	Read/Write	
4132	1024	Out2 Relay Control Delay U Un	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4133	1025	Out2 Relay Control Hysteress U Un	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4134	1026	Out2 Relay Control Functon I Un	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4135	1027	Out2 Relay Control Value I Un	Unsigned 16-bit	Read	Data * 0.01	X	1 .. 50	Read/Write	
4136	1028	Out2 Relay Control Delay I Un	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4137	1029	Out2 Relay Control Hysteress I Un	Unsigned 16-bit	Read	Data	X	0 .. 10	Read/Write	
4138	102A	Out2 Relay Control Functon dI n	Unsigned 16-bit	Read	Data	X	0 .. 1	Read/Write	
4139	102B	Out2 Relay Control Delay dI n	Unsigned 16-bit	Read	Data	X	0 .. 1000	Read/Write	
4140	102C	L1 Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4141	102D	L1 Active Power L							
4142	102E	L2 Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4143	102F	L2 Active Power L							
4144	1030	L3 Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4145	1031	L3 Active Power L							
4146	1032	Total Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4147	1033	Total Active Power L							
4148	1034	L1 Maximum Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4149	1035	L1 Maximum Active Power L							
4150	1036	L2 Maximum Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4151	1037	L2 Maximum Active Power L							
4152	1038	L3 Maximum Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4153	1039	L3 Maximum Active Power L							
4154	103A	Total Maximum Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4155	103B	Total Maximum Active Power L							
4156	103C	L1 Demand Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax		
4157	103D	L1 Demand Active Power L							

4158	103E	L2 Demand Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax	
4159	103F	L2 Demand Active Power L						
4160	1040	L3 Demand Active Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax	
4161	1041	L3 Demand Active Power L						
4162	1042	L1 ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4163	1043	L1 ReActive Power L						
4164	1044	L2 ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4165	1045	L2 ReActive Power L						
4166	1046	L3 ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4167	1047	L3 ReActive Power L						
4168	1048	Total ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4169	1049	Total ReActive Power L						
4170	104A	L1 Maximum ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4171	104B	L1 Maximum ReActive Power L						
4172	104C	L2 Maximum ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4173	104D	L2 Maximum ReActive Power L						
4174	104E	L3 Maximum ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4175	104F	L3 Maximum ReActive Power L						
4176	1050	Total Maximum ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4177	1051	Total Maximum ReActive Power L						
4178	1052	L1 Demand ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4179	1053	L1 Demand ReActive Power L						
4180	1054	L2 Demand ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4181	1055	L2 Demand ReActive Power L						
4182	1056	L3 Demand ReActive Power H	Sgned 32-bt	Read	Data * CTR * VTR	Var	0 .. Qmax	
4183	1057	L3 Demand ReActive Power L						
4184	1058	L1 Apparent Power H	Unsgnent 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4185	1059	L1 Apparent Power L						
4186	105A	L2 Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4187	105B	L2 Apparent Power L						
4188	105C	L3 Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4189	105D	L3 Apparent Power L						
4190	105E	Total Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4191	105F	Total Apparent Power L						
4192	1060	L1 Maximum Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4193	1061	L1 Maximum Apparent Power L						
4194	1062	L2 Maximum Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4195	1063	L2 Maximum Apparent Power L						
4196	1064	L3 Maximum Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4197	1065	L3 Maximum Apparent Power L						
4198	1066	Total Maximum Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4199	1067	Total Maximum Apparent Power L						
4200	1068	L1 Demand Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4201	1069	L1 Demand Apparent Power L						
4202	106A	L2 Demand Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4203	106B	L2 Demand Apparent Power L						
4204	106C	L3 Demand Apparent Power H	Unsgned 32-bt	Read	Data * CTR * VTR	VA	0 .. Smax	
4205	106D	L3 Demand Apparent Power L						
4206	106E	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	
4207	106F	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	
4208	1070	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	
4209	1071	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	
4210	1072	L1 Active Import Energy H3	Unsgned 64-bt	Read	Data	Wh	0 .. Max	
4211	1073	L1 Active Import Energy H2						
4212	1074	L1 Active Import Energy H1						
4213	1075	L1 Active Import Energy L						
4214	1076	L2 Active Import Energy H3	Unsgned 64-bt	Read	Data	Wh	0 .. Max	
4215	1077	L2 Active Import Energy H2						
4216	1078	L2 Active Import Energy H1						
4217	1079	L2 Active Import Energy L						
4218	107A	L3 Active Import Energy H3	Unsgned 64-bt	Read	Data	Wh	0 .. Max	
4219	107B	L3 Active Import Energy H2						
4220	107C	L3 Active Import Energy H1						
4221	107D	L3 Active Import Energy L						
4222	107E	Total Active Import Energy H3	Unsgned 64-bt	Read	Data	Wh	0 .. Max	
4223	107F	Total Active Import Energy H2						
4224	1080	Total Active Import Energy H1						
4225	1081	Total Active Import Energy L						
4226	1082	L1 Active Export Energy H3	Unsgned 64-bt	Read	Data	Wh	0 .. Max	
4227	1083	L1 Active Export Energy H2						
4228	1084	L1 Active Export Energy H1						
4229	1085	L1 Active Export Energy L						
4230	1086	L2 Active Export Energy H3	Unsgned 64-bt	Read	Data	Wh	0 .. Max	
4231	1087	L2 Active Export Energy H2						
4232	1088	L2 Active Export Energy H1						
4233	1089	L2 Active Export Energy L						
4234	108A	L3 Active Export Energy H3	Unsgned 64-bt	Read	Data	Wh	0 .. Max	
4235	108B	L3 Active Export Energy H2						
4236	108C	L3 Active Export Energy H1						
4237	108D	L3 Active Export Energy L						

4238	108E	Total Active Export Energy H3	Unsgned 64-bt	Read	Data	Wh	0 .. Max		
4239	108F	Total Active Export Energy H2							
4240	1090	Total Active Export Energy H1							
4241	1091	Total Active Export Energy L							
4242	1092	L1 Inductve Energy H3	Unsgned 64-bt	Read	Data	Varh	0 .. Max		
4243	1093	L1 Inductve Energy H2							
4244	1094	L1 Inductve Energy H1							
4245	1095	L1 Inductve Energy L							
4246	1096	L2 Inductve Energy H3	Unsgned 64-bt	Read	Data	Varh	0 .. Max		
4247	1097	L2 Inductve Energy H2							
4248	1098	L2 Inductve Energy H1							
4249	1099	L2 Inductve Energy L							
4250	109A	L3 Inductve Energy H3	Unsgned 64-bt	Read	Data	Varh	0 .. Max		
4251	109B	L3 Inductve Energy H2							
4252	109C	L3 Inductve Energy H1							
4253	109D	L3 Inductve Energy L							
4254	109E	Total Inductve Energy H3	Unsgned 64-bt	Read	Data	Varh	0 .. Max		
4255	109F	Total Inductve Energy H2							
4256	10A0	Total Inductve Energy H1							
4257	10A1	Total Inductve Energy L							
4258	10A2	L1 CapActive Energy H3	Unsgned 64-bt	Read	Data	Varh	0 .. Max		
4259	10A3	L1 CapActive Energy H2							
4260	10A4	L1 CapActive Energy H1							
4261	10A5	L1 CapActive Energy L							
4262	10A6	L2 CapActive Energy H3	Unsgned 64-bt	Read	Data	Varh	0 .. Max		
4263	10A7	L2 CapActive Energy H2							
4264	10A8	L2 CapActive Energy H1							
4265	10A9	L2 CapActive Energy L							
4266	10AA	L3 CapActive Energy H3	Unsgned 64-bt	Read	Data	Varh	0 .. Max		
4267	10AB	L3 CapActive Energy H2							
4268	10AC	L3 CapActive Energy H1							
4269	10AD	L3 CapActive Energy L							
4270	10AE	Total CapActive Energy H3	Unsgned 64-bt	Read	Data	Varh	0 .. Max		
4271	10AF	Total CapActive Energy H2							
4272	10B0	Total CapActive Energy H1							
4273	10B1	Total CapActive Energy L							
4274	10B2	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0		
4275	10B3	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0		
4276	10B4	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0		
4277	10B5	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0		
4278	10B6	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0		
4279	10B7	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0		
4280	10B8	L1 Apparent Energy H3	Unsgned 64-bt	Read	Data	VAh	0 .. Max		
4281	10B9	L1 Apparent Energy H2							
4282	10BA	L1 Apparent Energy H1							
4283	10BB	L1 Apparent Energy L							
4284	10BC	L2 Apparent Energy H3	Unsgned 64-bt	Read	Data	VAh	0 .. Max		
4285	10BD	L2 Apparent Energy H2							
4286	10BE	L2 Apparent Energy H1							
4287	10BF	L2 Apparent Energy L							
4288	10C0	L3 Apparent Energy H3	Unsgned 64-bt	Read	Data	VAh	0 .. Max		
4289	10C1	L3 Apparent Energy H2							
4290	10C2	L3 Apparent Energy H1							
4291	10C3	L3 Apparent Energy L							
4292	10C4	Total Apparent Energy H3	Unsgned 64-bt	Read	Data	VAh	0 .. Max		
4293	10C5	Total Apparent Energy H2							
4294	10C6	Total Apparent Energy H1							
4295	10C7	Total Apparent Energy L							
4296	10C8	L1 03.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		0
4297	10C9	L1 05.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		1
4298	10CA	L1 07.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		2
4299	10CB	L1 09.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		3
4300	10CC	L1 11.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		4
4301	10CD	L1 13.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		5
4302	10CE	L1 15.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		6
4303	10CF	L1 17.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		7
4304	10D0	L1 19.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		8
4305	10D1	L1 21.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		9
4306	10D2	L1 23.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		10
4307	10D3	L1 25.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		11
4308	10D4	L1 27.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		12
4309	10D5	L1 29.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		13
4310	10D6	L1 31.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		14
4311	10D7	L2 03.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		15
4312	10D8	L2 05.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		16
4313	10D9	L2 07.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		17
4314	10DA	L2 09.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		18
4315	10DB	L2 11.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		19
4316	10DC	L2 13.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		20
4317	10DD	L2 15.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0		21

4318	10DE	L2 17.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	22
4319	10DF	L2 19.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	23
4320	10E0	L2 21.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	24
4321	10E1	L2 23.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	25
4322	10E2	L2 25.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	26
4323	10E3	L2 27.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	27
4324	10E4	L2 29.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	28
4325	10E5	L2 31.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	29
4326	10E6	L3 03.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	30
4327	10E7	L3 05.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	31
4328	10E8	L3 07.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	32
4329	10E9	L3 09.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	33
4330	10EA	L3 11.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	34
4331	10EB	L3 13.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	35
4332	10EC	L3 15.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	36
4333	10ED	L3 17.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	37
4334	10EE	L3 19.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	38
4335	10EF	L3 21.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	39
4336	10F0	L3 23.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	40
4337	10F1	L3 25.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	41
4338	10F2	L3 27.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	42
4339	10F3	L3 29.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	43
4340	10F4	L3 31.HD Voltage	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	44
4341	10F5	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	45
4342	10F6	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	46
4343	10F7	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	47
4344	10F8	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	48
4345	10F9	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	49
4346	10FA	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	50
4347	10FB	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	51
4348	10FC	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	52
4349	10FD	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0	53
4350	10FE	L1 03.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	54
4351	10FF	L1 05.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	55
4352	1100	L1 07.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	56
4353	1101	L1 09.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	57
4354	1102	L1 11.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	58
4355	1103	L1 13.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	59
4356	1104	L1 15.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	60
4357	1105	L1 17.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	61
4358	1106	L1 19.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	62
4359	1107	L1 21.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	63
4360	1108	L1 23.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	64
4361	1109	L1 25.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	65
4362	110A	L1 27.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	66
4363	110B	L1 29.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	67
4364	110C	L1 31.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	68
4365	110D	L2 03.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	69
4366	110E	L2 05.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	70
4367	110F	L2 07.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	71
4368	1110	L2 09.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	72
4369	1111	L2 11.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	73
4370	1112	L2 13.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	74
4371	1113	L2 15.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	75
4372	1114	L2 17.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	76
4373	1115	L2 19.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	77
4374	1116	L2 21.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	78
4375	1117	L2 23.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	79
4376	1118	L2 25.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	80
4377	1119	L2 27.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	81
4378	111A	L2 29.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	82
4379	111B	L2 31.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	83
4380	111C	L3 03.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	84
4381	111D	L3 05.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	85
4382	111E	L3 07.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	86
4383	111F	L3 09.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	87
4384	1120	L3 11.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	88
4385	1121	L3 13.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	89
4386	1122	L3 15.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	90
4387	1123	L3 17.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	91
4388	1124	L3 19.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	92
4389	1125	L3 21.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	93
4390	1126	L3 23.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	94
4391	1127	L3 25.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	95
4392	1128	L3 27.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	96
4393	1129	L3 29.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	97
4394	112A	L3 31.HD Current	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	98
4395	112B	L1 THDV	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	99
4396	112C	L2 THDV	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	100
4397	112D	L3 THDV	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0	101

4398	112E	3P THDV	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0			102
4399	112F	L1 THDI	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0			103
4400	1130	L2 THDI	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0			104
4401	1131	L3 THDI	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0			105
4402	1132	3P THDI	Unsigned 16-bit	Read	Data * 0.1	%	0,0 ..1000,0			106
4403	1133	L1 Active Fundamental Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax			
4404	1134	L1 Active Fundamental Power L								
4405	1135	L2 Active Fundamental Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax			
4406	1136	L2 Active Fundamental Power L								
4407	1137	L3 Active Fundamental Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax			
4408	1138	L3 Active Fundamental Power L								
4409	1139	Total Active Fundamental Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax			
4410	113A	Total Active Fundamental Power L								
4411	113B	L1 Active Harmonc Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax			
4412	113C	L1 Active Harmonc Power L								
4413	113D	L2 Active Harmonc Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax			
4414	113E	L2 Active Harmonc Power L								
4415	113F	L3 Active Harmonc Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax			
4416	1140	L3 Active Harmonc Power L								
4417	1141	Total Active Harmonc Power H	Sgned 32-bt	Read	Data * CTR * VTR	W	0 .. Pmax			
4418	1142	Total Active Harmonc Power L								
4419	1143	RESERVED read as 0	Unsigned 16-bit	Read	Data	X	0			
Modbus Parity = 1-->None, 2-->Even, 3--> Odd										
Digital In State = 0--> OFF, 1-->ON										
Out1 Relay State = 0--> OFF, 1-->ON										
Out2 Relay State = 0--> OFF, 1-->ON										
Out1 Relay Control Parameter = 0-->OFF, 1-->ULn, 2-->ILn, 3-->ILt, 4-->thdU, 5-->thdI, 6-->PF, 7-->U Un, 8-->I Un, 9-->EnLn,10-->dI n										
Out2 Relay Control Parameter = 0-->OFF, 1-->ULn, 2-->ILn, 3-->ILt, 4-->thdU, 5-->thdI, 6-->PF, 7-->U Un, 8-->I Un, 9-->EnLn										
Out1 Relay Control Function = 0-->LO, 1-->HI										
Out2 Relay Control Function = 0-->LO, 1-->HI										
There is no support "Out2 All Functions" and "Digital Input" Funtions on TPM-01ES and TPM-04 these registers are read as 0										
Apparent Energy registers (4280-4295) are only valid forTPM-04,TPM-04SH and TPM-04SHD, else these registers are read as "0"										
Deleted modbus old value in register 69 (Modbus ID + baudrate) is only valid for TPM-04SHD else this register is read as "0"										
Big-Endian calculation is required for parameters larger than 16-bit										