All-in-One Multi-function Power Meter

Power monitoring and preventive maintenance are possible in one unit.

FEATURE

EARTH LEAKAGE DETECTION FUNCTION

- Live circuit insulation is monitored at all times.
- It is possible to perform preventive maintenance by detecting the current leakage for resistance that can cause electric shock and fire.
- Earth leakage detection can be added by option.

POWER MONITORING

- Measures: V, I, kW, var, VA, kvarh, PF, Hz, Demand, Harmonics etc.

■ 440V DIRECT CONNECTIONS

- Transformer (VT) is unnecessary because 440V can be directly connected to the input, which can save cost and save space.

■ SUPPORT MULTIPLE OUTPUT SYSTEMS

- 4 Analog Output or Communication Modbus RTU RS485 or CC-Link Output
- 2 DO (Selectable: Alarm, Pulse)

MEASUREMENT DISPLAY

- High Brightness White Backlight - 4 measured values and 1 bar graph display can be selected and display at the same time.

RANGE



POWER LINE SUPER MULTI-METER

SQLC-110L



lte	ms	Range							
		3P3W, 1P3W, 1P2W Common use (2VT2CT)							
Input Circuits		3P3W (2VT3CT)	Selectable						
		3P4W (2VT3CT or 3VT3CT)							
Input Range	3P3W, 1P3W, 1P2W	AC110V, 220V Common use (1P3W: AC100-200V) or 440V AC5A or 1A, 50/60Hz	Selectable						
	3P4W	AC110/ $$ 3V, 220/ $$ 3V Common use or 440/ $$ 3V, AC5A or 1A, 50/60Hz	Selectable						
	Power Range & Consumption VA	(1) AC85-264V, 10VA (Rated Voltage: AC100/110V, 200/220V) DC80-143V, 6W (Rated Voltage: DC100/110V) AC/DC Dual use (2) DC20-56V, 6W (Rated Voltage: DC24/48V) (3) DC10-14V, 7W (Rated Voltage: DC12V)	Please specify either (1) or (2) or (3). Only (1) Auxiliary Supply AC/DC dual use is supported analog output isolated code '6' & '7'.						
		Rated Voltage is AC110V: 2.2A or below (approx. 3.6ms)							
Auxiliary Supply		Rated Voltage is AC220V: 4.4A or below (approx. 3.6ms)							
	Inrush Current	Rated Voltage is DC110V: 1.6A or below (approx. 3.6ms)							
	(Time Constant)	Rated Voltage is DC24V: 5.0A or below (approx. 2.0ms)							
		Rated Voltage is DC48V: 9.9A or below (approx. 2.0ms)							
		Rated Voltage is DC12V: 4.7A or below (approx. 1.0ms) or 2A (ap	pprox. 20ms) when Rush Current re-happens.						

SPECIFICATION

		Ac	curacy						
Items	Specifications		Option Analog Com.& Pulse	Max.	Min.	Note			
Voltage (V)	AC150V - 750.0kV (34 ranges)	$\pm 1.0\%$	$\pm 0.5\%$	\checkmark	\checkmark	L1L2 - L2L3 - L1L3 selectable			
Current (A)	Max. demand, Demand, Instant AC5.00A - 30.0kA (76 ranges)	± 1.0%	± 0.5%	~	~	L1 - L2 - L3 selectable Display and output ranges can be set separately from the CT ratio.			
Active Power (W)	Max. demand, Demand, Instant 200W - 1000MW Selectable: Positive scale or Positive/ Negative scale	± 1.0%	± 0.5%	~	~	Display and analog output ranges can be set			
Reactive Power (var)	LEAD, LAG150var - 1000Mvar Selectable: Depend on Voltage/ Current range	± 1.0%	± 0.5%	\checkmark	~	indépendently.			
Apparent Power (VA)	400VA - 1000MVA (Depend on power range)	± 1.0%	± 0.5%	\checkmark	~	Display/Output are same scale as the power range.			
Power Factor (PF)	LEAD 0.500 - 1.000 - LAG 0.500 or LEAD 0.000 - 1.000 - LAG 0.000 (selectable)	± 2.0%	± 2.0%	~	~	If input is less than 20% of voltage range or less than 2% of current range, cos φ =1			
Frequency (Hz)	45-55Hz or 55-65Hz or 45-65Hz (selectable)	± 0.5%	± 0.5%	~	~	If input is less than 20% of voltage range, frequency=0.0Hz; Output lower limit value (with respect to output span)			
Earth Leakage lo, lor Method	ACO.O3A - 0.8A (6 ranges)	± 2.5%	± 2.5%	~	-	With respect to rating sensitive current value. O is display when input less than 3mA.			

SPECIFICATION

ltems				Accu	iracy					
			Specifications	Digital Display	Option Analog Com.& Pulse	Max.	Min.	Note		
Distantian Datia	Voltage	0.0	- 20.0% (Harmonics 2nd-15th); L1L2 - L2L3	± 1.0%	± 2.5%	\checkmark	-	Disited display 100% of distortion ratio		
DISTOLLION RALIO	Current	0.0 -	100.0% (Harmonics 2nd-15th); L1 - L3	± 2.5%	± 2.5%	~	-	Digital display. 100 % of distortion ratio		
Harmonic n th RMS,	Voltage	Al n=3, 4	C150V - 750.0kV (34 ranges); ,5, 7, 9, 11, 13, 15 & fundamental; L1L2 - L2L3	± 1.5%	± 1.5%	~	-	Digital display: % of voltage range		
Fundamental RMS	Current	A n=3, 4	C5.00A - 30.0kA (76 ranges); ,5, 7, 9, 11, 13, 15 & fundamental; L1 - L3	± 1.5%	± 1.5%	~	-	Digital display: % of current range		
Harmonia nth	Voltage	0.0-	20.0%; n=3, 4, 5, 7, 9, 11, 13, 15; L1L2 - L2L3	± 1.0%	± 1.0% ± 2.5%					
Content Ratio	Current		0.0-100.0%; n=3, 4, 5, 7, 9, 11, 13, 15; L1 - L3	± 2.5%	± 2.5%	~	-	Digital display: 100% of distortion ratio		
Hermonia Eth DMC	Voltage	AI	C150V - 750.0kV (34 ranges); L1L2 - L2L3	± 1.5%	± 1.5%	\checkmark	-	Digital display: % of voltage range		
Harmonic 5" KMS	Current	A	C5.00A - 30.0kA (76 ranges); L1 - L3	± 1.5%	± 1.5%	\checkmark	-	Digital display: % of current range		
Harmonic 5 th	Voltage		0.0 - 20.0%; L1L2 - L2L3	± 1.0% ± 2.5%		\checkmark	-	Digital diaplay 1000/ of content ratio		
Content Ratio	Current		0.0 - 100.0%; L1 - L3	± 2.5%	± 2.5%	~	-	Digital display. 100% of content fatio		
Active Energy (Wh)	у	Mul Up to 3r	Display: 5-digit tiplying factor: 10 ⁿ (n: integer) d decimal digit display is possible. Incoming/ Outgoing	PF 1: ± 2.0% PF 0.5: ± 2.5%	PF 1: 土 2.0% PF 0.5: 土 2.5%	-	-	Based on standard Watt-hour Meter; Refer to the option specifications for the setting range of pulse output (kWh/ Pulse).		
Reactive Energ (varh)	ду	Mul Up to 3r Incor Outg	Display: 5-digit tiplying factor: 10 ⁿ (n: integer) d decimal digit display is possible. ning reactive power (LAG/LEAD) oing reactive power (LAG/LEAD)	PF 0: 土 2.5% PF 0.87: 土 2.5%	% PF 0: ± 2.5% % PF 0.87: ± 2.5%		-	Refer to the option specifications for the setting range of pulse output (kWh/ Pulse).		
Measurin	g Method		Current, Voltage: RMS calculation Demand Current: Thermal type calculation Demand Power: Thermal type calculation or average within demand time (Set one or the Power, Reactive Power, watt-hour, var-hour: Time-sharing calculation Power Factor: Instant measuring or average within demand time. (Set one or the othe Calculated based on power and reactive power. Frequency: Zero cross time cycle Leakage Current: Fundamental RMS calculation Harmonic: FFT calculation							
Time Limit Setting	Demano Deman	d Current Id Power	0 sec./ 5 sec./ 10 sec./ 20 sec./ 8 min./	ec./ 30 sec./ 40 sec. 9 min./ 10 min/ 15 m	/ 50 sec./ 1 min./ 2 nin./ 20 min./ 25 mi	min./ 30	3 min. min. (9	/ 4 min./ 5 min./ 6 min./ 7 min./ 95% timed)		
	Harr	monic	Average time: 0 m	in./ 1 min./ 2 min./ 5	i min./ 10 min./ 15 r	nin./ 3	0 min.	(average measuring)		

RANGE SETTING

VT ratio range (34 ranges)

• CT Ratio Range (76 ranges)

•						1
150.0V (110V)	15.00kV (11kV/110V)	5.00A	75.0A	900A	5000A	
150V (110V)	18.00kV (13.2kV/110V)	6.00A	80.0A	1000A	5.00kA	2
300.0V (220V/110V)	18.82kV (13.8kV/110V) *5	7.50A	100.0A	1.00kA	6000A	
300V (220V/110V)	22.50kV (16.5kV/110V) *6	8.00A	100A	1200A	6.00kA	3
518V (380V/110V) *1	25.09kV (18.4kV/110V) *7	10.00A	120.0A	1.2kA	7500A	
600V (440V/110V) *2	30.0kV (22kV/110V)	10.0A	120A	1500A	7.5kA	
627V (460V/110V) *3	45.0kV (33kV/110V)	12.00A	150.0A	1.50kA	8000A	
655V (480V/110V) *3	90.0kV (66kV/110V)	12.0A	150A	1600A	8.00kA	
1200V (880V/110V)	105.0kV (77kV/110V) *8	15.00A	200.0A	1.60kA	9.00kA	
1500V (1100V/110V)	150.0kV (110kV/110V)	15.0A	200A	1800A	10.00kA	
2250V (1650V/110V) *4	180.0kV (132kV/110V)	20.00A	250.0A	1.80kA	10.0kA	
3000V (2200V/110V)	210.0kV (154kV/110V)	20.0A	250A	2000A	12.00kA	
3.00kV (2200V/110V)	255.0kV (187kV/110V) *9	25.00A	300.0A	2.00kA	12.0kA	F
4500V (3300V/110V)	300.0kV (220kV/110V)	25.0A	300A	2500A	15.00kA	
4.50kV (3300V/110V)	375.0kV (275kV/110V) *10	30.00A	400A	2.50kA	15.0kA	
9000V (6600V/110V)	518.2kV (380kV/110V) *11	30.0A	500A	3000A	20.00kA	
9.00kV (6600V/110V)	750.0kV (550kV/110V)	40.0A	600A	3.00kA	20.0kA	
		50.0A	750A	4000A	30.00kA	
L	J L	60.0A	800A	4.00kA	30.0kA	

*1 Bah graph full scale is 500V.

*2 440V direct input products should be used in 440V range (default setting). If using other ranges (460V, 480V, etc.), an error will occur and measurement will not be accurate.

*5 Bah graph full scale is 18kV.

*7 Bah graph full scale is 25kV.

*8 Bah graph full scale is 120kV.

*9 Bah graph full scale is 270kV.

- *10 Bah graph full scale is 400kV.
- *11 Bah graph full scale is 500kV.

Power & Reactive Power Range

Full scale of current meter can be set. Setting range can be set from 40 to 120% of CT ratio.

Full scale of power meter can be set. Setting range can be set from 40 to 115% of VT×CT ratio.

Full scale of reactive power meter can be set. Setting range can be set from 30 to 115% of VT×CT ratio.

Full scale less than 4000: 4-digit display.

Full scale more than 4000: 3-digit display.

Ex. 4800kW -> 4.80MW 40kvar -> 40.0kvar

20kW -> 20.00kW

lease contact us for label sheet to display the

T, CT setting.

*3 Bah graph full scale is 600V.*4 Bah graph full scale is 2400V. *6 Bah graph full scale is 24kV.

ORDERING INFORMATION Specify the specification code from below for each 1 through 8.

Specification Codes Туре SQLC-110L - 1 2 3 4 5 - 6 7 8

1) Ца	rd Madal		2) Input Circuit		3) Input Range	4) Aux	iliary	5) Extemal	6) Analog or		7) Contact			8) LCD View
1) Nd	ru mouel	Cor	nmon*1/ Detail Setting *2	Co	mmon*1/ Detail Setting *2		Sup	ply		nput (DI)		Communication Output		output (DO)		Angle *10
	Phase:	F	1P2W, 1P3W, 3P3W	F	150V, 300V, 5A [3P3W 2VT2CT]		AC85-	-264V &	0	None	0	None	0	None		Hard Model: D
D La	R-S-I-N; anguage:	1	1P2W	1	150V, 5A (150-300V, 5A 1P3W)	1	DC80)-143V	1	2 circuits	J	4 Analog Outputs*7	1	Pulse + Alarm		Upper & Lower
J	apanese	2	1P3W	'	[3P3W 2VT2CT]		Dua	it use	7	Other than	1	4-20mA	2	2 Alarms	F	F Co-viewing
	Phase:	3	3P3W	3	300V, 5A[3P3W 2VT2CT]	2	DC2	0-56V	_	above	2	0-1mA	3	2 Pulses		aliyle
E La	anguage:	G	1P2W, 1P3W, 3P3W	5	5A		AC85-	-264V &			3	1-5V	1	Pulse		Hard Model: E
	English	Ľ	+ Leakage *°	9	150V(150-300V, 1P3W)	3	Dua	J-143V al use			4	0-5V	Ľ	+ CPU Error	1	1 Upper view
	Phase:	5	1P2W+ Leakage	A	300V		(CE ma	rking) *6			5	i 0-10V	5	Alarm	1	2 Lower view
F La	anguage:	6	1P3W+ Leakage	D	150V, 300V	4	DC2	0-56V			6	4-20mA (output isolated)	Ľ	+ CPU Error		Hard Model: F
	English	7	3P3W+Leakage	G	150V, 300V, 1A [3P3W 2VT2CT]		(CE ma	rking) *•			7 1-5V (output isolated)		7	Other than	,	Upper & Lower
6 L1-	Phase: -L2-L3-N;			2	150V, 1A (150-300V,1A 1P3W) [3P3W 2VT2CT]	Z	Othe ab	er than love				Communication Output ^{*8}	Ľ	above		angle
	English			4	300V, 1A [3P3W 2VT2CT]						М	l Modbus RTU			Ľ	Unner & Lower
				6	1A						L	. CC-Link			ŀ	F Co-viewing
				7	5A [3P3W 3CT] *3						A	Protocol A				angle
				8	1A [3P3W 3CT] * ³						W	/ Anywire				
				Р	150V, 5A [3P3W 2VT3CT] *3						Z	. Other than above				
				Q	150V, 1A [3P3W 2VT3CT] *3											
				R	300V, 5A [3P3W 2VT3CT] *3											
				S	300V, 1A [3P3W 2VT3CT] *3											
				В	440V, 5A * ⁹											
				С	440V, 1A *9											
				Ζ	Other than above											
				F	150V/√3V, 300V/√3V, 5A]										
				1	150V/√3V, 5A	ĺ	*1	Production for the	ct w 2) li	ill be shipped	d o nd	out with default settin	gs	if code F or G	i is	selected
				3	300V/√3V, 5A	ĺ	*2	Specif	icati	ions will be s	et	up according to the	coc	le selected fro	om	n the detail
				5	5A			setting	of a	2) Input Circu	uit,	3) Input Range. Sett	ing	s possible to	ch	nanged after
				9	150V/√3V		*3	Please	ase. e sel	ect code 3 (3	3P	3W) for 2) Input circu	it. v	vhen input ra	na	ie is (3P3W
				А	300V/√3V			3CT) c	or (3	P3W 2VT3CT	Г).	, , , , ,	,		0	
		1	3D/.W/ *4	D	150V/√3V, 300/√3V		*4 *5	(2VT30	CT)	or (3VT3CT) i	is s	selectable.		a a a a a a a a a a a a a a a a a a a		uulah ta
		4	5141	G	150V/√3V, 300V/√3V, 1A		Э	purcha	ase (other ZCT bra	ani ani	d, please note 'Not F	is i Req	uest ZCT'.	/01	u wish lo
				2	150V/√3V, 1A		*6	Not for	r co	mmunication	οι	utput products.				
				4	300V/√3V, 1A		*7	When	4 ar	halog outputs		ode 6 or 7 is selecte	d, c	only Code 1: A	AC uile	85-264V,
				6	1A		*8	When	con	munication	ou	tput is selected, only	Cc	ode 1: AC85-2	264	4V, DC80-
				В	440V/√3V, 5A * ⁹			143V c	or C	ode 2: DC20	-56	6V of Aux. Power sup	oply	/ is available.		
				С	440V/√3V, 1A *9		*9	When	440	V, 440V/√3V V or Code 2:	dir	ectly input is selecte	d, d	only Code 1: / is available	AC	285-264V,
				Ζ	Other than above		*10	Specif	icati	on code is d	iffe	erent depend on the	1) F	lard model.		

OPTION

Zero Phase Current Transformer (ZCT) is necessary for measuring leakage current.

Zero Phase Current Transformer (ZCT) is optional. Please specify the type and quantity if you wish to purchase ZCT from Daiichi.



OTG-LA30

ZCT for Earth Leakage Measurement

ZCT: Type and Specification									
Туре	Manufacturer	Primary circuit current	Inside diameter (usage)						
OTG-LA21	OMRON Corp.	50A	21 $arphi$ (indoor)						
OTG-LA30	OMRON Corp.	100A	30 $arphi$ (indoor)						
OTG-LA42	OMRON Corp.	200A	42 $arphi$ (indoor)						
OTG-LA68	OMRON Corp.	400A	68 $arphi$ (indoor)						
OTG-LA82	OMRON Corp.	600A	82 $arphi$ (indoor)						
OTG-LA30W	OMRON Corp.	100A	30 $arphi$ (outdoor)						



VIEW ANGLE



INTRODUCTION OF S-LC SERIES

SALC-110L

Power Line Multi-Meter 3 Phase Ammeter



Single-function type specially for current measurement. Can measure current, demand current, etc.

XLC-110/110L Digital DC Receiving Meter



DC Receiving Indication Type. Centralized monitoring measurement for three physical quantity at the same time is possible.

SVLC-110L Power Line Multi-Meter 3 Phase Voltmeter



TLC-110/110L Digital DC Input Meter



Single-function type specially for voltage measurement. Can be able to measure voltage, demand voltage, etc.

Single-function

type specially for

Measurement for

power, energy

work with live wires. There is a risk of electric shock, device malfunction or fire.

DC measurement.

current, voltage, active

(Watt-hour) is possible.

For ensure safety, Technical knowledge is necessary when using this product. Please refer to manual instruction

for correct operation. Please check connection diagram carefully before performing connections. Please DO NOT

SQLC-72L

Power Line Super Multi-Meter



Multi-function in smaller size DIN72. Can measurement all electric power line and earth leakage.

DLOR-110 Earth Leakage & Overload Protection Device



All-in-one type meter which can protect and monitor earth leakage and overload, also measure all electric power line in low voltage circuit.

I SAFETY PRECAUTIONS

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