ORDERING INFORMATION Model : LSMT4

PLEASE FILL IN THIS SECTION	FACTORY USE ONLY	
Model	Job No.	Inspected by:
Company	Ser No. –	
Name	Sales	Inspected by:
P/O No.		

Fill in blank sections or mark ❑ with ✔.

INPUT RANGE SETTING

■ CONFIGURATION

❑ Single-phase/ 2-wire ❑ Single-phase/ 3-wire ❑ 3-phase/ 3-wire ❑ 3-phase/4-wire
Factory Default Setting: 3-phase/3-wire

■ VT SETTING

For the use of a VT, select primary voltage by increments of 10V within range of 50 – 400 000 V.

Primary voltage	V

Factory Default Setting; VT unused

For secondary voltage range, specify in integer with range indicated on the table below; this value is the input rated voltage.
Factory Default Setting; 110 V

CONFIGURATION	RANGE	
Single-phase/ 2-wire	Voltage between V1 and N	50 – 277 V
3-phase/ 3-wire	Line-to-line voltage	50 – 480 V
Single-phase/ 3-wire	Voltage between V1 and N	50 – 277 V
3-phase/ 4-wire	Phase voltage	

Secondary voltage (rated voltage)	V

■ CT SETTING

For the use of a CT, select primary current in integer within range of 1 – 20 000 A. For secondary current, rated current is 1A or 5A depending on the model.
Factory Default Setting; CT unused

Primary current	A

■ RATED INPUT POWER

❑ Standard	❑ No compensation

• When choosing "Standard"

Rated input power is calculated as following: A = VT secondary voltage × CT secondary current (1 or 5) × a
(a = 1 for single phase/2-wire; 2 for single phase/3-wire or three phase/3-wire; 3 for three phase/4-wire)
Rated input power is the value rounded from A to the nearest hundred that is the result of an integer multiplied by 100 times CT secondary current.
Example:

CONFIGURATION	RANGE	RATED INPUT POWER
Single phase/ 2-wire	110 V / 5 A 220 V / 5 A	500 W 1000 W
Single phase/ 3-wire	110 V / 5 A	1000 W
3 phase/ 3-wire	110 V / 5 A 220 V / 5 A	1000 W 2000 W
3 phase/ 4-wire	220 V / 5 A	3500 W

• When choosing "No Compensation"
Rated input power value is calculated with the following formulas.
Single phase/ 2 -wire: Power = Rated voltage × Rated current
Single phase/ 3 -wire: Power = Rated voltage × Rated current × 2
3-phase/ 3 -wire: Power = Rated voltage × Rated current × √3
3-phase/ 4 -wire: Power= Rated voltage × Rated current × 3

OUTPUT SETTING

■ OUTPUT SIGNAL ASSIGNMENT
Only for nonstandard settings, fill in the signal assignment ID in the table below.

ITEM		SIGNAL ASSIGNMENT ID (PRINTED ON THE UNIT)
I1	Current, Line 1	I1
I2	Current, Line 2	I2
I3	Current, Line 3	I3
IN	Neutral current	IN
U12	Delta voltage, 1 – 2	V12
U23	Delta voltage, 2 – 3	V23
U31	Delta voltage, 3 – 1	V31
U1N	Phase voltage, Phase 1	V1N
U2N	Phase voltage, Phase 2	V2N
U3N	Phase voltage, Phase 3	V3N
P	Active power	W
P1	Active power, Phase 1	W1
P2	Active power, Phase 2	W2
P3	Active power, Phase 3	W3
Q	Reactive power	var
Q1	Reactive power, Phase 1	var1
Q2	Reactive power, Phase 2	var2
Q3	Reactive power, Phase 3	var3
S	Apparent power	VA
S1	Apparent power, Phase 1	VA1
S2	Apparent power, Phase 2	VA2
S3	Apparent power, Phase 3	VA3
PF	Power factor	PF
PF1	Power factor, Phase 1	PF1
PF2	Power factor, Phase 2	PF2
PF3	Power factor, Phase 3	PF3
F	Frequency	Hz

Enter "-", for unused channels.

• Single phase/ 2-wire

CH.	1	2	3	4	5	6	7	8	9	10
Standard	I1	–	–	V1N	–	–	W	var	PF	Hz
Your specification										

• Single phase/ 3-wire

CH.	1	2	3	4	5	6	7	8	9	10
Standard	I1	IN	I3	V1N	V3N	V31	W	var	PF	Hz
Your specification										

• 3 phase/ 3-wire, 3 phase/ 4-wire

CH.	1	2	3	4	5	6	7	8	9	10
Standard	I1	I2	I3	V12	V23	V31	W	var	PF	Hz
Your specification										

■ ANALOG LIMIT

❑ With	Limit at -1 % and +101 %
❑ Without (STD)	No limit (output -5 to +105 %)

Caution: Do not specify analog limit settings in case of linearization table use, as output settings are performed with the table.

■ OUTPUT RANGE

• Voltage

Specify the 100% of voltage input range in integer, with 50 through 480V for line to line voltage and 50 through 277V for phase voltage.
0% is 0V. (Factory setting: 150 V)

	V

• Current, power, power factor, frequency

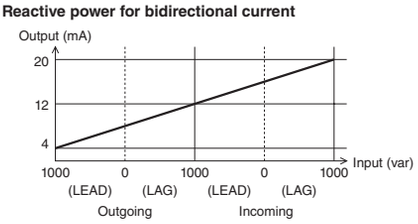
Specify input range in the following table.
For current and power, set input rating to 1 (100%) and fill in the coefficient by which it is multiplied.
The input rating is the same as the specified on first clause of “rated input power” section.

INPUT SPECIFICATIONS		OUTPUT RANGE						TIDE (STD.: Without)
		OUTPUT 0%			OUTPUT 100%			
		COEFFICIENT	RANGE	STD.	COEFFICIENT	RANGE	STD.	
CURRENT	N/A		0.0000 – 0.2000	0.0000		0.3000 – 1.2000	1.0000	N/A
POWER	N/A		-1.2000 – 0.2000	0.0000		0.3000 – 1.2000	1.0000	By negative cos.
APPARENT POWER	N/A		0.0000 – 0.2000	0.0000		0.3000 – 1.2000	1.0000	N/A
REACTIVE PWR.	❑ 0 – LEAD		-0.5000 – 0.0000	0.0000		-0.5000 – -1.2000	-1.0000	N/A
	❑ 0 – LAG		0.0000 – 0.5000	0.0000		0.5000 – 1.2000	1.0000	N/A
	❑ LEAD – LAG (STD)		-0.4000 – -1.2000	-1.0000		0.4000 – 1.2000	1.0000	❑ With ❑ Without
	❑ LAG – LEAD		0.4000 – 1.2000	1.0000		-0.4000 – -1.2000	-1.0000	❑ With ❑ Without
POWER FACTOR	❑ LEAD 0.5 – 1 – LAG 0.5	STD: LEAD 0.5 – 1 – LAG 0.5						❑ With ❑ Without
	❑ LAG 0.5 – 1 – LEAD 0.5							
	❑ LEAD 0 – 1 – LAG 0							
	❑ LAG 0 – 1 – LEAD 0							
FREQUENCY	❑ 45 – 65	STD: 45 – 65 Hz						N/A
	❑ 45 – 55							
	❑ 55 – 65							

Correlation of reactive power for bidirectional current and power factor for bidirectional current are described in following figure.

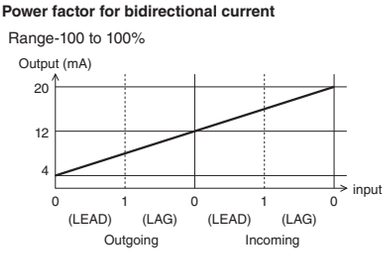
■ OUTPUT EXAMPLES

• Reactive power for bidirectional current

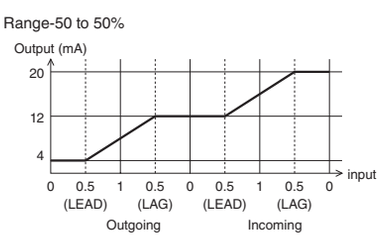


• Power factor for bidirectional current

Range-100 to 100%



Range-50 to 50%



• Energy pulse

Select energy from the following table according to primary power, and fill in the ❑.
Setting values Wh and varh are common use. Output channel 11 is fixed to Wh and 12 to varh.
The primary power is calculated by the following formulas.

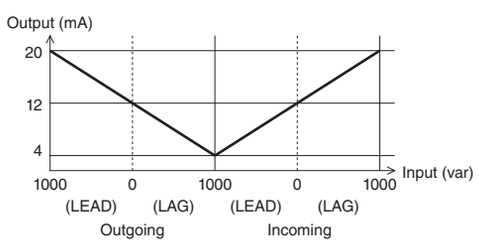
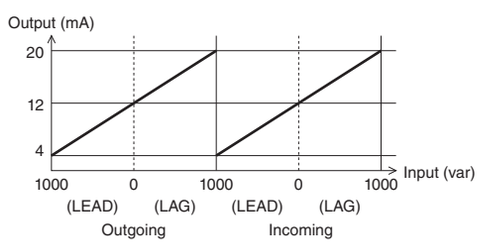
Single phase/ 2 -wire: Power = primary voltage × primary current
Single phase/ 3 -wire: Power = primary voltage (phase voltage) × primary current × 2
3-phase/ 3 -wire: Power = primary voltage × primary current × √3
3-phase/ 4 -wire: Power = primary voltage (phase voltage) x primary current × 3

PRIMARY POWER (kVA)	USABLE PULSE UNIT (Wh OR varh / PULSE)			
< 10	1 k	0.1 k	0.01 k	0.001 k
10 – 100	10 k	1 k	0.1 k	0.01 k
100 – 1 000	100 k	10 k	1 k	0.1 k
1 000 – 10 000	1 M	100 k	10 k	1 k
10 000 – 100 000	10 M	1 M	100 k	10 k
≥ 100 000	100 M	10 M	1 M	100 k
Your specification	❑	❑	❑	❑ Standard

■ REACTIVE POWER SIGN SETTING

Specify the characteristic at bidirectional input when reactive power and power factor without bidirectional current.
Refer to the following table in order to output power factor and reactive power when power factor is near 0 to specify.
(IEC is compatible with firmware version 1.3 or later.)

❑ Standard (IEC)	❑ SPC

REACTIVE POWER SIGN	IEC	SPC
REACTIVE POWER		
POWER FACTOR