

For 3P4W		
KEY PRESS	ONLINE PAGE DESCRIPTION	DISPLAY
Press "PF"	The first screen : Displays units of R phase power factor for a second, then display value.	PF1
	The second screen : Displays unit of Y phase power factor for a second, then display value.	PF2
	The third screen : Displays unit of B phase power factor for a second, then display value.	PF3
	The fourth screen : Displays unit of average of all three phase power factor then display value.	PFAVG

For 3P4W																																												
KEY PRESS	ONLINE PAGE DESCRIPTION	DISPLAY																																										
Press “P”	The first screen : Displays unit of active power of R phase for a second, then display value.	Y1																																										
	The second screen : Displays unit of active power of Y phase for a second, then display value.	Y2																																										
	The third screen : Displays unit of active power of B phase for a second, then display value.	Y3																																										
	The fourth screen : Displays unit of total active power for a second, then display value.	Yt																																										
	The fifth screen : Displays unit of active energy of R phase for a second, then display value.	YH1																																										
	The sixth screen : Displays unit of active energy of Y phase for a second, then display value.	YH2																																										
	The seventh screen : Displays unit of active energy of B phase for a second, then display value.	YH3																																										
	The eighth screen : Displays unit of total active energy of MAINS source for a second, then display value.	Y. YHt																																										
	The ninth screen : Displays unit of total active energy of DG source for a second, then display value. DG symbol ON	YHt																																										
	The tenth screen : Displays unit of total active energy of MAINS + DG source for a second, then display value. DG symbol ON.	Y. YHt																																										
k l q b <table><tr><td>ka</td><td>2a</td><td>S³</td><td>ia</td><td>3</td><td>ca</td><td>8</td></tr><tr><td>PE=P t</td><td>Q³ S³ U³ S³ V³ S³ CNM³ S</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>NE=O t Jo</td><td>N³ I³ U³ S³ I³ V³ S³ CNM³ S</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>NE=O t Jv</td><td>O⁸ EI³ U³ S³ I³ V³ S³ CNM³ S</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>NE=O t j</td><td>P² EI³ U³ S³ I³ V³ S³ CNM³ S</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>a d</td><td>N³ I³ O⁸ EI³ P² EI³ Q³ S³ U³ S³ I³ V³ S³ CNM³ S</td><td></td><td></td><td></td><td></td><td></td></tr></table>			ka	2a	S ³	ia	3	ca	8	PE=P t	Q ³ S ³ U ³ S ³ V ³ S ³ CNM ³ S						NE=O t Jo	N ³ I ³ U ³ S ³ I ³ V ³ S ³ CNM ³ S						NE=O t Jv	O ⁸ EI ³ U ³ S ³ I ³ V ³ S ³ CNM ³ S						NE=O t j	P ² EI ³ U ³ S ³ I ³ V ³ S ³ CNM ³ S						a d	N ³ I ³ O ⁸ EI ³ P ² EI ³ Q ³ S ³ U ³ S ³ I ³ V ³ S ³ CNM ³ S					
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a d	N ³ I ³ O ⁸ EI ³ P ² EI ³ Q ³ S ³ U ³ S ³ I ³ V ³ S ³ CNM ³ S																																											
Press “Q”	The first screen : Displays unit of reactive power of R phase for a second, then display value.	YAR1																																										
	The second screen : Displays unit of reactive power of Y phase for a second, then display value.	YAR2																																										
	The third screen : Displays unit of reactive power of B phase for a second, then display value.	YAR3																																										
	The fourth screen : Displays unit of total reactive power for a second, then display value.	YARt																																										
	The fifth screen : Displays unit of reactive energy of R phase for a second, then display value.	YARH1																																										
	The sixth screen : Displays unit of reactive energy of Y phase for a second, then display value.	YARH2																																										

Press "Q"	The seventh screen : Displays unit of reactive energy of B phase for a second, then display value.	UAFH3
	The eighth screen : Displays unit of total reactive energy of MAINS source for a second, then display value.	UAFH3
	The ninth screen : Displays unit of total reactive energy of DG source for a second, then display value. DG symbol ON	UAFH3
	The tenth screen : Displays unit of total reactive energy of MAINS + DG source for a second, then display value. DG symbol ON.	UAFH3

For 3P4W		
KEY PRESS	ONLINE PAGE DESCRIPTION	DISPLAY
Press "S"	The first screen : Displays unit of Apparent power of R phase for a second, then display value.	1A
	The second screen : Displays unit of Apparent power of Y phase for a second, then display value.	1A2
	The third screen : Displays unit of Apparent power of B phase for a second, then display value.	1A3
	The fourth screen : Displays unit of total Apparent power for a second, then display value.	1AB
	The fifth screen : Displays unit of Apparent energy of R phase for a second, then display value.	1AH
	The sixth screen : Displays unit of Apparent energy of Y phase for a second, then display value.	1AH2
	The seventh screen : Displays unit of Apparent energy of B phase for a second, then display value.	1AH3
	The eighth screen : Displays unit of total Apparent energy of MAINS source for a second, then display value.	1. 1AHB
	The ninth screen : Displays unit of total Apparent energy of DG source for a second, then display value. DG symbol ON	1AHB
	The tenth screen : Displays unit of total Apparent energy of MAINS + DG source for a second, then display value. DG symbol ON.	1. 1AHB

[illegible][illegible]

$C^{-2} \alpha, \sim \neg \circ \langle \alpha \rangle \vdash \neg \alpha @ \alpha^2 \mid 1 \vdash \neg \langle \mu \alpha \rangle \vdash \neg \text{NOPQRSTKUV} =^a t \S \vdash \S \alpha @ \vdash$
 $\langle \neg \langle \mu \alpha \rangle \vdash \neg @ \rangle \vdash \mathcal{E}^{-3} \circ \sim 1 \vdash \cdot \neg \langle \alpha \rangle \vdash \alpha$

$$C^{23'} = m \sim 1 \text{ a.u.}$$

paç®£=m~!a||

$$S=\mathcal{E}''\mid\cdots=\mathcal{C}^-\mu^{\textcircled{R}}\mathbb{W}=j\sim\mathbf{z}\alpha^{\textcircled{R}}\alpha^2\mid1=\mathbb{T}\sim\|\mu\alpha^{-3}=\mathbb{W}\mathbb{W}\mathbb{W}\mathbb{W}=j\sim^3\alpha\mathcal{E}^{-\textcircled{R}}$$
$$\begin{aligned} b @ \alpha^2 | 1 : \neg \neg \mu \alpha : 3 \S^- . @ = \neg @ : 3 \neg @ | \alpha : \alpha \sim | \alpha \& \\ c^{-2} : \alpha , \sim \neg \alpha | \alpha \neg f : \alpha @ \alpha^2 | 1 : \neg \neg \mu \alpha : 3 = \text{NOPQ}(\text{RS} =^a \text{t } \S : \S \alpha @ = \\ \neg \neg \mu \alpha : \neg @ : \mathcal{E}^{-3} @ \neg 1 : . \neg \neg : \alpha \end{aligned}$$
$$C^{23'} = m \sim \frac{1}{2} \alpha \parallel =$$

SERIAL NUMBER	DESCRIPTION
m2p33-▲=a□1÷½²=NM=3□C%-E³°◀-13p2~◀②μ-;□2(	

Config. page	Function	Range or Selection	Factory Setting	
	Password	0000 to 9998	1000	PASWrd
1	Change Password	No / Yes	No	ChGPyd
1.1	New Password	0000 to 9998		NEwPyd
2	Network Selection	3P4W, 3P3W, 1P2W-R, 1P2W-Y and 1P2W-B	3P4W	NY SEL
3	CT Secondary	1A or 5A	5	CT SEC
4	CT Primary	1A, 5A to 10,000A	5	CT PPI
5	PT Secondary	100V to 500V	350	PT SEC
6	PT primary	100V to 500kV	350	PT PPI
7	^µ~²³µ'®	^µ~±: `µ®	^µ~	AUTRES
8	b, 'α@£²³µ'®	l k±: l cc	l k	E±RES
9	Slave IdG	1 to 255	1	SLVId
10	Baud RateG	300, 600, 1200, 2400, 4800, 9600 and 19200 (bps)	9600	bdrATE
11	ParityG	None, Odd, Even	None	PARI ty
12	Stop BitG	1 or 2	1	StPbI t
13	Factory default	Yes / No	No	defALt
NQ	Reset energy	Yes / No	No	rStENg
NQKN	Password	0001 to 9999	1001	PASWrd
NQKO	Source SelectionG	Source1(Mains) / Source2 (Generator)	Source 1 (Mains)	SOURCE
NQIP	Reset active energy	Yes / No	No	YH
NQIQ	Reset reactive energyG	Yes / No	No	YARH

EG=Z= I ®_k1=√⁻²=b j PMSJ`JaF

[illegible]

CONFIGURATION

Note : Setting should be done by professional after going through this user manual and having understood the application situation.

$$C^{-2} = \mathcal{S} \alpha = \mathcal{Q}^{-1} \mathbb{R} \mathbb{V}^* \mid \mu^2 \sim \mathbb{R} = 3 \alpha' \mathbb{R} \mid = \neg \mathbb{E} \alpha \parallel$$

- Press **r** **3** **>** **H** **E** **a** **0** **1** **=** **2** **p** **3** **<** **-** **@** **#** **%** **&** **'** **(** **)** ***** **+⁺** **,[,]** **-** **.** **/** **:** **;=** **[** **** **]^_`~**
configuration menu.
- Use **◀** key to shift the cursor for next digit and to edit.
Use **▲** key to increment the configuration value.
- Use **▼** key to decrement the configuration.
- Use **↵** key for save parameter value & go to the next page

Ea⁻CK=k~¬a||=|m-fkpg=b | PMS=| | mNMovJsMOF=====Em~|a:O=¬Y:OF

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EG=Z= | ®^x1=√⁻²=b j PMSJ`JaF

ER ADDRESSES LIST=E | ®^κ1=¥⁻²=b j PMSJ`JaF

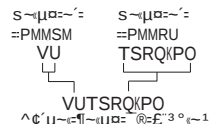
**Readable Parameters : [Length (Register) : 2 ;
Data Structure : Float]**

Address	Hex Address	Parameter
30024	0x18	kW1
30026	0x1A	kW2
30028	0x1C	kW3
30030	0x1E	kVA1
30032	0x20	kVA2
30034	0x22	kVA3
30036	0x24	kVAr1
30038	0x26	kVAr2
30040	0x28	kVAr3
30042	0x2A	Total kW
30044	0x2C	Total kVA
30046	0x2E	Total kVAr
30048	0x30	PF1
30050	0x32	PF2
30052	0x34	PF3
30054	0x36	Average PF
PMMRU	M _i , P [^]	q ⁻ ~c=a t S
PMMSM	M _i , P [`]	q ⁻ ~c=a t SG
PMMSO	M _i , Pb	q ⁻ ~c=a S [^] S
PMMSQ	M _i , QM	q ⁻ ~c=a S [^] SG
PMMSS	M _i , QO	q ⁻ ~c=a S [^] 2S
PMMSU	M _i , QQ	q ⁻ ~c=a S [^] 2SG
PMMUQ	M _i , RQ	a t SN=Ef ⁻ °F
PMMUS	M _i , RS	a t SN=Ef ⁻ °FG
PMMUU	M _i , RU	a t SO=Ef ⁻ °F
PMMVM	M _i , R [^]	a t SO=Ef ⁻ °FG
PMMVO	M _i , R [`]	a t SP=Ef ⁻ °F
PMMVQ	M _i , Rb	a t SP=Ef ⁻ °FG
PMMVVS	M _i , SM	a t SN=Eb _i °F
PMMVU	M _i , SO	a t SN=Eb _i °FG
PMNMM	M _i , SQ	a t SO=Eb _i °F
PMNMO	M _i , SU	a t SO=Eb _i °FG
PMNMNQ	M _i , S [^]	a t SP=Eb _i °F
PMNMS	M _i , S [`]	a t SP=Eb _i °FG
PMNNU	M _i , Sb	q ⁻ ~c=a t S=Ef ⁻ °F
PMNNM	M _i , TM	q ⁻ ~c=a t S=Ef ⁻ °FG
PMNNO	M _i , TO	q ⁻ ~c=a t S=Eb _i °F
PMNNQ	M _i , TQ	q ⁻ ~c=a t S=Eb _i °FG
PMNNS	M _i , TS	a S [^] 2SN=Ef ⁻ °F
PMNNU	M _i , TU	a S [^] 2SN=Ef ⁻ °FG
PMNOM	M _i , T [^]	a S [^] 2SO=Ef ⁻ °F
PMNOO	M _i , T [`]	a S [^] 2SO=Ef ⁻ °FG

Address	Hex Address	Parameter
PMNOQ	M, T _b	a s [^] 2SP=Ef ⁻ , °F
PMNOS	M, U _M	a s [^] 2SP=Ef ⁻ , °FG
PMNOU	M, U _O	a s [^] 2SN=Eb ⁻ , °F
PMNPM	M, U _Q	a¶N=Eb ⁻ , °FG
PMNPO	M, U _S	a s [^] 2SO=Eb ⁻ , °F
PMNPQ	M, U _U	a s [^] 2SO=Eb ⁻ , °FG
PMNPS	M, U [^]	a s [^] 2SP=Eb ⁻ , °F
PMNPU	M, U ⁻	a s [^] 2SP=Eb ⁻ , °FG
PMNQM	M, U _b	q ⁻ ~c ^a s [^] 2S=Ef ⁻ , °F
PMNQO	M, V _M	q ⁻ ~c ^a s [^] 2S=Ef ⁻ , °FG
PMNQQ	M, V _O	q ⁻ ~c ^a s [^] 2S=Eb ⁻ , °F
PMNQS	M, V _Q	q ⁻ ~c ^a s [^] 2S=Eb ⁻ , °FG
PMNQU	M, V _S	a s [^] SN
PMNRM	M, V _U	a s [^] SN _G
PMNRO	M, V [^]	a s [^] SO
PMNRQ	M, V ⁻	a s [^] SO _G
PMNRS	M, V _b	a s [^] SP
PMNRU	M, N _{NM}	a s [^] SP _G
PMNSM	M, Q _S	q ⁻ ~c ^a t S=a d
PMNSO	M, Q _S	q ⁻ ~c ^a t S=a d _G
PMNSQ	M, Q _S	q ⁻ ~c ^a s [^] S=a d
PMNSS	M, Q _S	q ⁻ ~c ^a s [^] S=a d _G
PMNSU	M, Q _S	q ⁻ ~c ^a s [^] 2S=a d
PMNTM	M, Q _S	q ⁻ ~c ^a s [^] 2S=a d _G
PMNTO	M, Q _S	q ⁻ ~c ^a t S=j ~@ ³ Ha d
PMNTQ	M, Q _S	q ⁻ ~c ^a t S=j ~@ ³ Ha d _G
PMNTS	M, Q _S	q ⁻ ~c ^a s [^] S=j ~@ ³ Ha d
PMNTU	M, Q _S	q ⁻ ~c ^a s [^] S=j ~@ ³ Ha d _G
PMNUM	M, Q _S	q ⁻ ~c ^a s [^] 2S=j ~@ ³ Ha d
PMNUO	M, Q _S	q ⁻ ~c ^a s [^] 2S=j ~@ ³ Ha d _G
PMNUQ	M, Q _S	DG Sensing
PMSUQ	M, Q _S	Serial no. (Data Structure : Hex)

k~|||G0>=~~E~~E2o33=-2oq^2f23'-P-E'|-='¥o@o2|1|=||-µo3k
=====C^-2'oE=@@oq|1|=||-µo=:2o~-o2'SoQVVVVV=
=====|-3'oE=@^q,mq~2'|C-@C-o@-o':S'o=||-µo=
=====¥:-||S'-EE2o33'=¥-3~o:o@o2|1k

b,~ ~ o^o||C-2^q~c=a t S|S=-µo~-PMMRU=-3'TSRQKPO=
==@E_S|=µo=-PMMSM=-3VUJ^C µ~C||-µo=¥q~
=====a t S|-3-VUTSRQKPOK



AUTOMATIC / MANUAL MODE DESCRIPTION

Press  key for 5 seconds to toggle between Automatic and Manual mode.

Note : By default unit operates in automatic mode.

In automatic mode online pages scroll automatically at the rate of 5 seconds per page.

In automatic mode when any key is pressed, unit temporarily switches to manual mode and the appropriate page is displayed, also if any key is not pressed for 5 sec, unit resumes automatic mode.

 USER GUIDE

LED INDICATIONS

- **INT** : The INT LED provides optical output for calibration verification as well as visual indication of energy integration. The pulse rate is 1000 Pulses/kWh.

- **bumi:bum:i ba:** ʔ̚m̥˧˥ : sɑːm̥˧˥ ɛ̃˨˩ ~ ʔ̚m̥˧˥ : sɑːm̥˧˥ ɛ̃˨˩ one or more CT connections or presence of negative power in any or all phases. In such cases meter may not indicate the correct energy consumption. The CT should be connected to the meter with correct polarities.

kbq t l o h=pb i b ` qf l k=^k a= t fofk d=fkm r q

Network selection in configuration	$t \stackrel{?}{=} t$
$PmQ \ t$	$PmQ \ t$
$PmP \ t$	$PmP \ t$
$NmO \ t \models NmNmOmPf$	$NmO \ t \models NmNmOmPf$

Note : P1, P2 and P3 are Three Phase.

MODBUS REGISTER ADDRESSES LIST

Readable / writable parameters : [Data Structure : Integer]

Address	Hex Address	Parameter	Range		Length (Register)
40000	0x00	Password	Min value : 0	Max value : 9998	1
40001	0x01	N/W Selection	Value : 0	Meaning : 3P4W	1
			Value : 1	Meaning : 3P3W	1
			Value : 2	Meaning : 1P2W-R	1
			Value : 3	Meaning : 1P2W-Y	1
			Value : 4	Meaning : 1P2W-B	1
40002	0x02	CT Secondary	Min value : 1	Max value : 5	1
40003	0x03	CT primary (CT Secondary=5)	Min value : 5	Max value : 10000	1
		CT primary (CT Secondary=1)	Min value : 1	Max value : 10000	
40004	0x04	PT Secondary	Min value : 100	Max value : 500	1
40005	0x05	PT primary	Min value : 100	Max value : 500kV	2
QMMNS	M _s NM	$\wedge \mu^{-} = 0 \alpha^3 \cdot \mu^{-} \otimes$	s~μσ=I M	j α~θθ ≡^μ ⁻	1
			s~μσ=I N	j α~θθ ≡ ⁻ μσ'	1
QMMNT	M _s NN	$b_s \cdot \alpha \otimes \varepsilon \alpha \varepsilon = 0 \alpha^3 \cdot \mu^{+} \otimes$	s~μσ=I M	j α~θθ ≡ I c c	1
			s~μσ=I N	j α~θθ ≡ I k	1
40007	0x07	Slave id	Min value : 1	Max value : 255	1
40008	0x08	Baud rate	Value : 0x0000	Meaning : 300	1
			Value : 0x0001	Meaning : 600	
			Value : 0x0002	Meaning : 1200	
			Value : 0x0003	Meaning : 2400	
			Value : 0x0004	Meaning : 4800	
			Value : 0x0005	Meaning : 9600	
			Value : 0x0006	Meaning : 19200	
40009	0x09	Parity	Value : 0x0000	Meaning : None	1
			Value : 0x0001	Meaning : Odd	
			Value : 0x0002	Meaning : Even	
40010	0x0A	Stop bit	Value : 0x0000	Meaning : 1	1
			Value : 0x0001	Meaning : 2	
40012	0x0C	Factory Default	Value : 1	Meaning : Set to factory setting range	1
40013	0x0D	Reset Active Energy	Value : 1	Meaning : Reset Total Active Energy	1
40014	0x0F	Reset Apparent Energy	Value : 1	Meaning : Reset Total Apparent Energy	1
40015	0x10	Reset Reactive Energy	Value : 1	Meaning : Reset Total Reactive Energy	1
40042	0x2A	Reset Active Energy DG	Value : 1	Meaning : Reset Total Active Energy of DG	1
40043	0x2B	Reset Apparent Energy DG	Value : 1	Meaning : Reset Total Reactive Energy of DG	1
40044	0x2C	Reset Reactive Energy DG	Value : 1	Meaning : Reset Total Apparent Energy of DG	1

Ea⁻ck~¬a||m⁻fkpq=b | PMS=| | mNMOVJsMQF=====Em~ | a:p=γ:QF

