

PML1.PJ1.PJ2 电能计量柜 Electric Energy Metering Cubicles





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PML1.PJ1.PJ2



概述

PML1、PJ1、PJ2系列电能计量柜是确保电能计量的准确与可靠,维护供电部门及电单位的双方经济效益的专用计量设备,本公司是上海供电部门指定生产上述电能计量柜定点生产单位之一。产品符合GB16934-1997和供电部门要求。

用途

- 整体柜式PJ1-Z低压计量开关设备适用于户内 正常使用的交流50Hz,额定工作电压380V,额 定工作电流630A及以下,作为低压电力系统的 配电和计量之用。
- 整体柜式PJ1-0.38低压计量开关设备适用于户内正常使用的交流50Hz额定工作电压380V,额定工作电流800A及以下,主要用于与GGD柜及变压器柜配合使用的电能计量。
- ◆ 分体柜式PJ2-D高压计量柜适用于户内正常使用的交流50Hz,额定工作电压100V(380V), 作为分体高(低)压电能计量。
- 分体箱式PJ2-F临时用电计量柜,适用于户内 正常使用的交流50Hz,额定工作电压380V,作 为临时用电计量之用。
- ◆ 整体柜PML1低压计量开关设备适用于户内正常 使用的交流50Hz,额定工作电压380V,额定工 作电流630A及以下的高层、小高层住宅的成套 计量配电装置。

General

PML1, PJ1 and PJ2 Series Electric Energy Metering Cubicles are specially designed metering equipments ensuring accurate and reliable electric energy metering and maintaining both benefits of power supply utilities and power consumers. The products are in conformity with GB 16934 - 1997 and satisfy the requirements from power supply utilities. And ECC is one of such product appointed manufactures by Shanghai Power Supply Utilities.

Application

- The integrated cubicle-type PJ1-Z Low Voltage Metering Switchgear is a kind of indoor cubicle competently applied in power network with AC 50Hz, nominal working voltage 380V and rated working current up to 630A in normal conditions as an power distribution and metering equipment in low voltage electric power systems.
- The integrated cubicle-type PJ1-0.38 Low Voltage Metering Switchgear is a kind of indoor cubicle competently applied in power network with AC 50Hz, nominal working voltage 380V and rated working current up to 800A in normal conditions as an power metering equipment mainly for GGD Switchgear and transformer cubicles.
- The separated cubicle-type PJ2-D High Voltage Metering Cubicle is a kind of indoor cubicle competently applied in power network with AC 50Hz and nominal working voltage 100V (380V) in normal conditions for separated high (low) voltage power metering.
- The separated case-type PJ2-F Temporary Metering Cubicle is a kind of indoor cubicle competently applied in power network with AC 50Hz and nominal working voltage 380V in normal conditions for temporary power metering.
- The integrated cubicle-type PML1 Low Voltage Metering Switchgear is a kind of indoor cubicle competently applied in power network with AC 50Hz, nominal working voltage 380V and rated working current up to 630A in normal conditions as an complete power distribution and metering equipment in high rises and sub high rises.



柜体结构及外型尺寸

电能计量柜体是用冷轧钢板加工焊接而成,采用前 开门形式, 柜体旁板和后板均焊牢, 使之无法打开。 前门装有专用可加铅封的计量门锁,并装有4-5mm厚 透明玻璃观察窗,以便不开门能抄表。CT表装于可摇 开的活动门上,活动门采用可脱卸型,即可随计量方 式的改变而及时变换其接线,又可方便安装,检查及 维修。表板上安装活动表架能适用各种不同的类型电 度表的安装。

柜体尺寸及外形

- ◆ PJ1-Z柜体尺寸: 900 (宽) ×600 (深) ×2200 (高) 外形见图1。
- ◆ PJ1-0.38柜体尺寸:1000(宽)×600(深)×2200 (高),外形见图2。
- ◆ PJ2-D柜体尺寸: 800 (宽) ×600 (深) ×2200 (高)外形见图3。
- ◆ PJ2-F柜体尺寸: 700 (宽) ×300 (深) ×1100 (高) 外形见图4。
- ◆ PML1柜体尺寸: 500~1000 (宽)×600 (深)×2200 (高),外形见图5。

使用条件

电能计量柜应在下述正常使用条件下保证其正常工作:

- ◆ 本电能计量柜适用于户内。
- ◆ 环境温度: -5°C-+40°C, 并且在24h内其平均温度 不超过+35C
- ◆ 相对湿度: +20°C时不应高于90%, +40°C时不应高 于50%。
- ◆ 海拔高度不超过2000m
- ◆ 倾斜度: 对柜壳体不应超过3°, 对电度表不应超过1°

Structure and overall dimensions

The cubicle frame is made of machined and welded cold rolled sheet steel in a form of front door access. Side walls and back plates are firmly welded and impossible to open. On the front door, special locking facilities with lead seal is available and there is a viewing window with 4 ~ 5 mm thick transparent glass through which one may read meters without need to open the front door.

CT meter is mounted on a flexible and removable door. This structure features easy in modifying wires with variation of metering mode. It is easy to mount, inspection and maintenance. The removable racks in meter plates are suitable for mounting of different kinds of meters.

Dimensions and overalls

- ◆ PJ1 Z: 900 (Width) × 600 (Depth) × 2200 (Height); refer to Fig. 1 for overall.
- PJ1 0.38:1000 (Width) × 600(Depth) × 2200 (Height); refer to Fig. 2 for overall.
- ▶ PJ2 D:800 (Width) × 600 (Depth) × 2200 (Height); refer to Fig. 3 for overall.
- ◆ PJ2 F:700 (Width) × 300 (Depth) × 1100 (Height); refer to Fig. 4 for overall.
- PML1:500~1000(Width) × 600(Depth) × 2200 (Height); refer to Fig. 5 for overall.

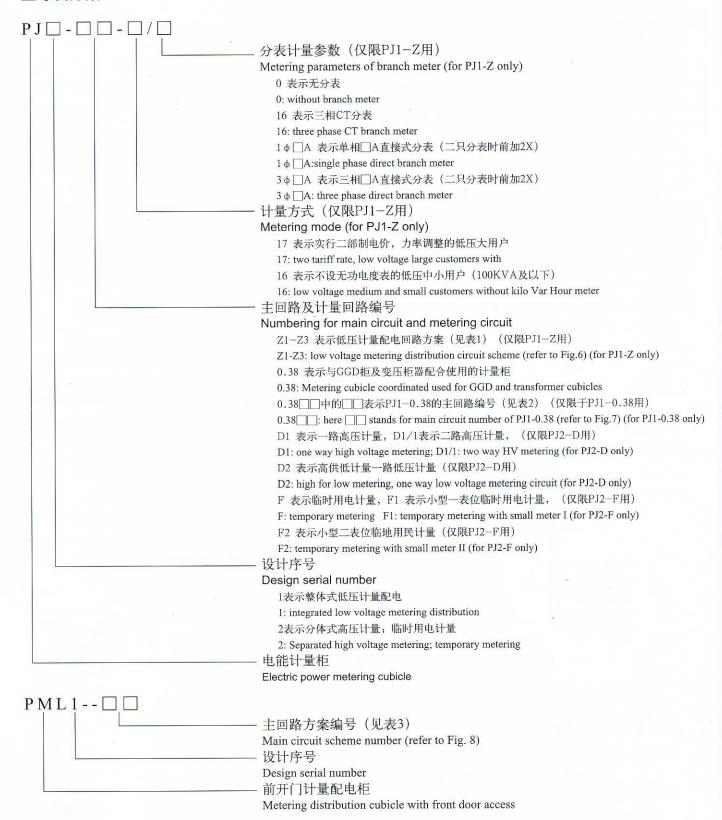
Working conditions

The metering cubicles work normally under the following conditions:

- Indoor
- ♦ Ambient temperature: -5 °C ~+40 °C with average temperature within 24 hours not over +35 °C;
- Relative humidity: Not higher than 90% at +20℃, and not 50% at 50℃;
- Altitude above sea level: Not over 2000 meters.
- Inclination: Not over 3° for the cubicle frame and not over 1° for the meter.



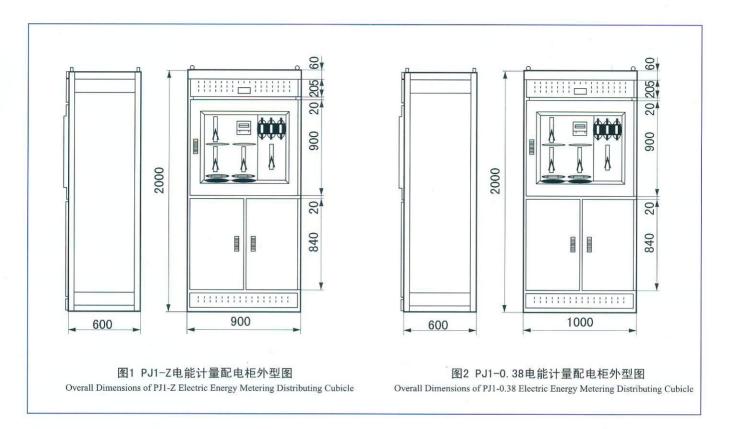
型号及方案

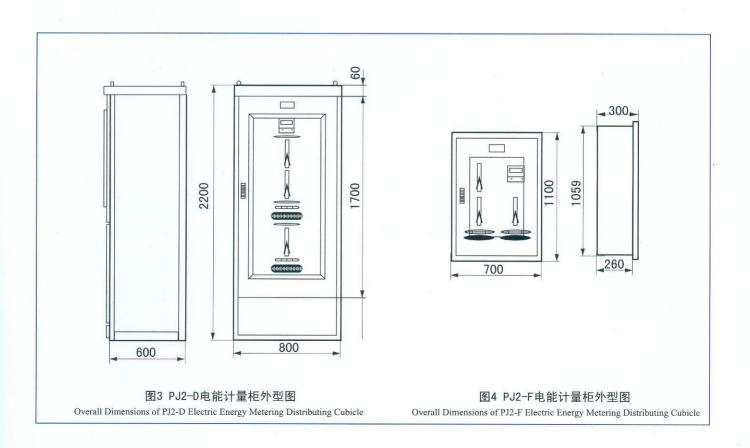


注:中文PML1、PJ1-0.38是按最新的要求更改后的资料编制,我公司仍生产原要求的PML1、PJ1-0.38系列计量柜

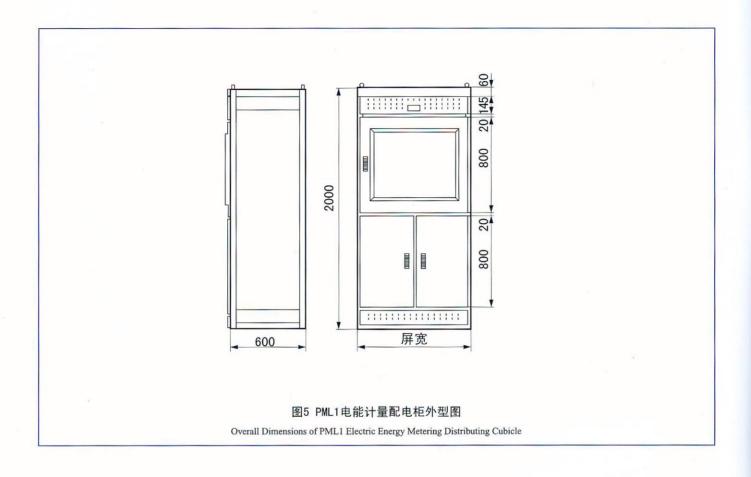
Note: The manual is prepared according to the latest information modified in light of latest requirements on PML1 and PJ1 - 0.38, yet these products with original requirement are still available.











P.I1-7由能计量板计量配由同路方案Metering	& Distributing Circuit Schemes for PJ1 - Z Electric Energy Metering Cubicle
	& Distributing Circuit Schemes for FJ1 - Z Electric Energy Metering Cubicie

丰

方案名 Scheme	Z1 (D-01)	Z2 (D-02)	Z3 (D-03)	Z4 (D-04)
一次主 接线形式 Primary main circuit				
适用范围 Application	灯力分装, 实行总 Separate light and pow consumption examina		Separate light and pow	行总用量力率考核 er circuits without total nation in power factor
	灯容量大于100A Light capacity greater than 100A	灯容量小于100A Light capacity less than 100A	灯容量小于100A Light capacity less than 100A	每路灯容量小于100A, 有二路 Two lighting circuits with each one in a capacity of less than 100A
全型号 Full type	PJ1-Z1-17/16 无分表时: PJ1-Z1-17/0	PJ1-Z₂-17/3 ф □A(三相分表) (Three-phase branch meter) PJ1-Z₂-17/1 ф □A(单相分表) (Three-phase branch meter) 无分表时:: (Without branch meter) PJ1-Z2-17/0	PJ1-Z₂-17/3 Φ □A (三相分表) (Three-phase branch meter) PJ1-Z₂-17/1 Φ □A (单相分表) (Three-phase branch meter) 无分表时 (Without branch meter) PJ1-Z3-16/0	PJ1-Z ₃ -16/ _{2×3} (二只相三分表) (Two three-phase branch meters) PJ1-Z ₃ -16/ _{2×3} (二只单相分表) (Two single-phase branch meters) J1-Z ₃ -16/ _{2×3} (一只三相分表一只单相分表) (One three-phase branch meter and one single-phase branch meter)



PML1计量柜方案图	Schemes of	PML1 Meterin	g Cubicle	and the same of th					表3
主回路方案编号 Scheme No.	01	02	03	04	05	06	07	08	09
主回路方案 单线图 (进出线) Scheme in single line drawing (incoming & outgoing)							***		
用途 Application	二路进线 Two incoming circuits	二路进线 Two incoming circuits	一路进线左联 One incoming circuit, connected to left	一路进线左联 One incoming circuit, connected to left	一路进线右联 One incoming circuit, connected to right	一路进线右联 One incoming circuit, connected to right	一路进线左联、一路馈线 One incoming circuit, connected to left, one feeder		一路进线右联,一路馈线 One incoming circuit, connected to right, one feeder
Electric of grand and gra	限QSA-250-400 Only	限QSA-250-400 Only	J	J	J	4	√	J	√
量量 CM1-400-630C/3300							限CM1-400C/3300	限CM1-400C/3300	限CM1-400C/3300
号 规 CM1-100-225L/3300							√	J	1
屏宽 Cubicle width	1000	1000	500	500	500	500	600	600	600
备注 Remarks	下进 Down entry	上进 Up entry	下进 Down entry	上进 Up entry	下进 Down entry	上进 Up entry	下进下出 Down entry down outgoing	上进上出 Up entry up outgoing	下进下出 Down entry down outgoing

	-								续表3
主回路方案编号 Scheme No.	10	11	12	13	14	15	16	17	18
主回路方案 单线图 (进出线) Scheme in single line drawing (incoming & outgoing)	1								
用途 Application	一路进线 右联一路馈线 One incoming circuit, connected to right, one feeder	一路馈线 One feeder	一路馈线 One feeder	二路馈线 Two feeder	二路馈线 Two feeder	三路馈线 Three feeder	三路馈线 Three feeder	四路馈线 Four feeder	四路馈线 Four feeder
EE QSA-250-630	√								
EEEE QSA-250-630 EEEE QSA-250-630 AU1-400-630C/3300 要 CM1-100-225L/3300 KA CM1-100-225L/3300	限CM1-400C/3300 Only	1	√	√	1	限CM1-400C/3300 Only	限CM1-400C/3300 Only	限CM1-400C/3300 Only	限CM1-400C/3300 Only
g 亏 与规 CM1-100-225L/3300	√	√	1	√	√	√	~	√	√
屏宽 Cubicle width	600	400	400	600	600	600	600	800	800
备注 Remarks	上进上出 Up entry up outgoing	下出 down outgoing	上出 up outgoing	下出 down outgoing	上出 up outgoing	下出 down outgoing	上出 up outgoing	下出 down outgoing	上出 up outgoing

续表3



主回路方案编号 Scheme No.	19	20	21	22	23	24	25	26	27	28
主回路方案 单线图 (计量) Scheme in single line drawing (metering)									# T (47,7)	
用途 Application	总力率考核, 左进右出 Total consumption power factor examination, left entry right outgoing	总力率考核, 左进左出 Total consumption power factor examination, left entry left outgoing	总力率考核, 一路馈线 Total consumption power factor examination, one feeder	总力率考核, 一路馈线 Total consumption power factor examination, one feeder	总力率考核, 二路馈线 Total consumption power factor examination, two feeder	总力率考核, 二路馈线 Total consumption power factor examination, two feeder	总力率考核, 三路馈线 Total consumption power factor examination, Three feeder	总力率考核, 三路馈线 Total consumption power factor examination, Three feeder	一路饤表 一路单相直接表 One CT circuit, one single-phase direct meter circuit	一路CT表 一路单相直接表 One CT circuit one single-phas direct meter circuit
电 NTO 3-100-360 Electric apparatus spec 格 NF50-CP-2P	√	1	1	√	1	1	1	√	√(见注1)	√(见注1)
^區 器 设 LOKD-0.5	√	1	1	1	√	1	7	1	1	√
金 金 型 型 CM1-400-630C/3300			~	√	√	√	4	1	√(见注1)	√(见注1)
亭 CM1-100-225L/3300			7	1	✓	1	1	1	√(见注1)	√(见注1)
格 NF50-CP-2P									√	~
屏宽 Cubicle width	600	600	600	600	600	600	800	800	600	600
备注 Remarks			下出 down outgoing	上出 up outgoing	下出 down outgoing	上出 up outgoing	下出 down outgoing	上出 up outgoing	下出 down outgoing	上出 up outgoing

										法仪3
主回路方案编号 Scheme No.	29	30	31	32	33	34	35	36	37	38
主回路方案 单线图 (计量) Scheme in single line drawing (metering)										
用途 Application	一路CT表 一路三相直接表 One CT circuit, one three-phase direct meter circuit	一路CT表 一路三相直接表 One CT circuit, one three-phase direct meter circuit		一路单相直接表	一路单相直接表	一路CT表 二路三相直接表 One CT circuit, two three-phase direct meter circuits	一路单相直接表 Two three-phase	一路单相直接表		
电 NTO 3-100-360	√(见注1)	√(见注1)	√(见注1)	√(见注1)	√(见注1)	√(见注1)	√(见注1)	√(见注1)	√(见注1)	√(见注1)
电 NTO 3-100-360 器器 LOKD-0. 5	1	1			1	1				
量 CM1-400-630C/3300	√(见注1)	√(见注1)			√(见注1)	√(见注1)				
6 4 6 6 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	√(见注1)	√(见注1)	限CM1-100L/3300	限CM1-100L/3300	√(见注1)	√(见注1)	限CM1-100L/3300	限CM1-100L/3300	限CM1-100L/3300	限CM1-100L/3300
格 NF50-CP-2P							1	√	1	1
屏宽 Cubicle width	600	600	600	600	800	800	800	800	1000	1000

注1. 直接式电度表: 三相不超过100A, 单相不超过40A, 直接式电度表所配熔断器及塑壳断路器电流不超过100A。所有电度表由供电部 门提供并接线。

下出 down outgo 上出 up outgoin 下出 down outg 上出 up outgoin 下出 down outgoi 上出 up outgoing

上出 up outgoin

- 注2. 刀熔开关:也可用HH15的相对应规格,柜外操作,加铅封。插入式塑壳断路器:也可用RMM1,S1-S5的相对应规格,柜内操作。
- Note 1: Direct meter The rated current of 3-phase meter is not over 100A and that of single phase meter not over 40A. The rated current of fuse and circuit breaker working with the meter is not over 100A. All such meters are supplied and connected by power supply authorities.
- Note 2: HH15 Series Knife Fuse Switches in corresponding specs may also applied here with out cubicle operation, with lead seal. And RMM1, S1 S5 Plug-in Molded Case Circuit Breakers in corresponding specs may also be applied here with in cubicle operation.

备注

下出 down outgoing 上出 up outgoin 下出 down outgoing



) <u></u>			ic app				語设全 一		Incor		Prim	Hŀ
柜体外型尺寸	PJ专用接线盒 Special connection box	JSY-1B失压记时仪 Voltage loss timing meter	C45N-2P	CM1-100-225L/3300	CM1-400-630C/3300	S6N-800	L0KD-05	NT0-4-100-800	进出线情况 Incoming & outgoing	用途 Application	主回路方案 一次主接线 Primary main circuit	主回路方案编号 Scheme No.
	۷	۷	*	۷	4	۷	۷	۷	下进, 左联, 分表下出 Down entry, connected to left, down outgoing via branch meter	总力率考核. Total power f branch met		01
	4	۷.	*	۷	~	۷	4	۷	上进, 左联, 分表上出 Up entry, connected to left, up outgoing via branch mete	总力率考核, 一路直接分表, 与GGD柜配合使用 Total power factor examination, One circuit direct branch meter Work with GGD in coordination		02
	4	۷.	*	۷	4	۷	4	£ .	下进,右联,分表下出 Down entry, connected to right, down outgoing via branch meter	>表, 与GGD框配合使用 ation, One circuit direc GGD in coordination		03
柜宽1000,柜	۷	۷	*	۷	4	۷	4	۷.	上进,右联,分表上出 Up entry, connected to right, up outgoing via branch meter	合使用 it direct nation		04
柜宽1000, 柜深600, 柜高2200, 如无分表, 柜宽可以减为800.	۷.	٤		۷	4	۷	4	۷	下进, 左联, 分表下出 Left entry, connected to right, down outgoing via branch meter	总力率考核 Total power fi branch mete		05
柜宽1000, 框深600, 柜高2200, 如无分表, 柜宽可以	<	د		۷	~	۷	4	4	上进, 左联, 分表上出 Up entry, connected to right, up outgoing via branch meter	总力率考核, 一路CT分表, 与G Total power factor examination, branch meter Work with GGD		06
宽可以减为800.	<	۷.		ذ	4	<	~	۷	下进, 左联, 分表上出 Down entry, connected to left, down outgoing via branch meter	>表, 与GGD框配合使用 vination, One circuit CT th GGD in coordination		07
	<	۷.		۷	~	۷	۷.	4	上进,右联,分表上出 Up entry, connected to right, up outgoing via branch meter	≙使用 cuit CT ination		08
	~	۷.	*	د	~	٨	~	۷	左进, 右联, 分表下出 Left entry, connected to right, down outgoing via branch meter	总力率考核,一路直接分表 与变压器柜GGD柜配合使用 Total power factor examination, One of direct branch meter, GGDWork we transformer cubicle and GGD cubicle in co		09
	~	4	*	۷	~	۷	~	د	左进,右联,分表上出 Left entry, connected to right, up outgoing via branch meter	总力率考核,一路直接分表, 与变压器柜GGD柜配合使用 Total power factor examination, One circuit direct branch meter, GGDWork with transformer cubicle and GGD cubicle in coordination		10



9.,			edde :	lectric		野nb;	命设备	田、忠	Inco		Pri	Ш
柜体外型尺寸	PJ专用接线盒 Special connection box	JSY-1B失压记时仪 Voltage loss timing meter	C45N-2P	CM1-100-225L/3300	CM1-400-630C/3300	S6N-800	LOKD-05	NTO-4-100-800	进出线情况 Incoming & outgoing	用途 Application	主回路方案 一次主接线 Primary main circuit	主回路方案编号 Scheme No.
	~	~	*	۷	~	۷	~	~	右进, 左联, 分表下出 Down entry, connected to left, down outgoing via branch meter	总力率考核, - 与变压器及G Total power fac One circuit dir Work with GGI		Ξ
	~	۷	*	۷	~	~	4	۷	右进, 左联, 分表上出 Down entry, connected toleft, up outgoing via branch mete	总力率考核,一路直接分表, 与变压器及GGD柜配合使用 Total power factor examination, One circuit direct branch meter Work with GGD in coordination		12
Width 1000 der	۷	۷	*	٨	۷	۷	۷	4	在进,右联,分表下出,左进,右联,分表上出 Left entry, connected to right, connected to down outgoing right, up outgoing via branch meter via branch meter	Total power fac Work wi	**************************************	13
柜宽1000, 柜深600, 柜高2200, 如无分表, 柜宽可以减为800.	~	۷	< *	۷	~	۷.	4	4	左进,右联,分表上出 Left entry, connected to right, up outgoing via branch meter	总力率考核,一路直接分表, 与变压器柜(上进)GGD柜(下进)配合使用 Total power factor examination One circuit direct branch meter Work with transformer cubicle(up entry)and GGD cubicle (down entry) in coordination		14
00, 框深600, 框	۷.	\ <	*	۷	۷.	۷	۷.	۷.	在进、左联、分表下出 右进、左联、分表上出 Right entry, connected to left, down outgoing via branch meter Down entry, connected to left, up outgoing via branch meter	x, 一路直接分表) GGD框 (下进) 配 One circuit direct bicle(up entry)an (ry) in coordination		15
柜宽1000, 框深600, 柜高2200, 如无分表, 柜宽	۷.	۷	<*	۷	~	4	4	~	右进, 左联, 分表上出 Down entry, connected to left, up outgoing via branch mete	配合使用 t branch meter nd GGD on		16
表, 柜宽可以减为800.	۷	۷	< *	۷	4	4	4	۷	左进下出 Left entry & down outgoing	总力率 Wo		17
为800.	۷	۷	*	۷	4	۷	۷	۷	左进上出 Left entry & up outgoing	总力率考核,一路直接分表, Total power factor One circuit direct b Work with transformer cub		18
000	۷	۷	*	~	4	<	۷	خ	右进下出 Right entry & down outgoing	力率考核, 一路直接分表, 与变压器柜配合使用 Total power factor examination One circuit direct branch meter Work with transformer cubicle in coordination		19.
	۷	۷	<	۷	4	4	~	~	右进上出 Right entry & up outgoing	配合使用 ination		20

续表2



- 注1. 直接式电度表: 三相不超过100A, 单相不超过40A, 直接式电度表所配断熔器及塑壳断路器电流不超过100A。
- 注2. 所有电度表由供电部门提供并接线,电流互感器、失压记时仪、专用接线盒用供电部门指定的防窃电产品。
- 注3. 虚线框内塑壳断路器由用户自行配置或者用户出资委托制造厂配置(订货时指定型号、规格、数量)。
- 注4. 本图中01-08、17-20方案主回路电缆进出线少改为铜排进出线(铜排不伸出柜外,联接排用户自配),但须在订货时注明。
- 注5. 熔断器也可用RTO相对应规格。塑壳断路器也可用RMM1; DZ20的相对应规格。
- 注6. 有*的为单相直接式发表用。
- Note 1: Direct meter The rated current of 3-phase meter is not over 100A and that of single phase meter not over 40A. The rated current of fuse and circuit breaker working with the meter is not over 100A.
- Note 2: All such meters are supplied and connected by power supply authorities. Current transformers, voltage loss timing meters and special connection boxes are supplied by power supply authority appointed manufacturers in electricity theft proof type.
- Note 3: The molded case circuit breakers in dotted lines are configured by customers or by the manufacturer with consignation from customer at customer expense (type, spec and quantity are pointed out when ordering).
- Note 4: In the Scheme Nos. 01 08 and 17 20, cable incoming and outgoing may be modified to copper busbar incoming and outgoing (the busbar does not stretch out of the cubicle and the connecting busbar is prepared by customers). But this should be noted when ordering.
- Note 5: RTO Fuse in corresponding specs and RMM1, DZ20 Molded Case Circuit Breakers in corresponding specs may also be applied here.
- Note 6: Items with * are used for single-phase direct meters only.

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