





JAGUAR 6300S

High Performance Digital Power Quality Meter The ideal choice for the electrical power quality measurement









JAGUAR IOT INTRODUCTION

The premium brand JAGUAR IoT is made for power quality and energy monitoring products for the distribution, control & management of electrical energy and other dynamic processes. JAGUAR IoT products specialize in advanced research, design and production of high performance Digital power quality meters, Current Sensor Smart Meter, Flexible Rogowski coil CTs, Split core CTs, Cloud web server, Network communication modules, Multi-family billing solutions.



JAGUAR IOT VISION

JAGUAR IoT's vision is to provide sustainable, dependable and efficient energy usage by making energy management more convenient and intelligent for whole world. JAGUAR IoT's various power quality & metering devices are designed for supporting its versatile options and product range allowing users to manage and monitor the distribution and usage of energy. JAGUAR IoT products are easily integrated into new or existing energy monitoring systems, automation facilities and building control systems for intelligent, cost-effective energy systems that are supported by the expert technical staff.



JAGUAR IOT PRODUCT LINE

JAGUAR IoT has an extensive product range that includes single and three phase high performance Digital power quality meters, Multi-channel meters, a variety of Split core AC/DC CT, UL listed Power quality CTs, Rogowski coil CTs, Input/Output and Communication modules, DC Power meters, Current Sensor Smart Meter, Hall effect DC current sensors and Data logging software.

CONTENTSSMART INNOVATIVE TECHNOLOGY

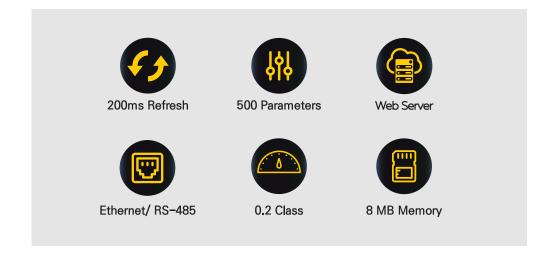
	INTRODUCTION	02
	APPLICATION	03
	COMMUNICATION DIAGRAM	04
١.	FEATURES	05
٠.	SPECIFICATION	06
	FUNCTION LIST	07
٠.	I/O MODULES & COMMUNICATION	08
٠.	ACCURACY	09
٠.	STANDARD COMPLIANCE	10
٠.	STANDARD COMPLIANCE & ORDERING INFORMATION	11
١.	INSTALLATION	12
١.	DEMENSION	13
	WIRING DIAGRAM	14

CONTENTS REMORT CT ACCESSORY

■ JPS SERIES	17-19
■ ROGOWSKI COIL SERIES	22-28
■ SPLIT-CORE CURRENT TRANSFORMER	31-57
■ PT ACCESSORY	59

HIGH PERFORMANCE DIGITAL POWER QUALITY METER

The JAGUAR 6300S is a high accuracy digital power quality and energy meter developed by J&D Electronics, it makes it possible for enterprises to monitor electric power energy and to control power distribution system



INTRODUCTION JAGUAR 6300S

1. The importance of Power Quality in Power Distribution Systems

In power distribution systems such as metering distribution feeders, transformers, generators, capacitor banks and motors and switchgear, There are many problems of power quality such as Dip[Sag] / Swell, caused by load conditions, power facilities and power supply. Power quality monitoring and analysis help supervisor to check the cause, and to take measures.

2. High Accuracy

It is clear that enterprise energy management system plays an important role for effective energy use and preventive maintenance to prepare CO2 emission management in building, plant and data center.

Above all, measuring accuracy is the most important factor for reliability of the energy management. JAGUAR 6300S can play a big role in this kind of situation. JAGUAR 6300S makes 0.2% high accuracy measurements for current and voltage, and complying with IEC61557–12 class 0.2 for power and energy.

3. True RMS

With JAGUAR 6300S, you can measure highly nonlinear loads with perfectly high accuracy. 128 sampling /cycle true-rms measurement can be fulfilled by a high-level sampling technique.

4. Certified by IEC61000-4-30 Class S, Power Quality

With JAGUAR 6300S, you can get a lots of power quality like Dip[Sag], Swell, Harmonics[up to 63rd], Crest factor, K factor, and Unbalance. So many problems of power facilities and energy management can be determined and analyzed accurately by JAGUAR 6300S. The measuring method of power quality information complying with IEC61000-4-30 Class S.

5 Statistical Data

Statistical information like maximum, minimum, and average of voltage, current, and power within gathering interval on communication can be obtained with JAGUAR 6300S. The information which measurement parameters instantaneously fluctuated is included, and this makes it possible to precisely analyze the power quality trend of voltage, current, and power.

6 Safety and Reliability by CE/UL

JAGUAR 6300S is certified by CE [EN61326-1, EN61326-2-1] and UL[UL61010-1, 2nd edition]...

7. Add-on I/O Modules

You can add modules to the rear side of meter so easily, and this will help you to customize extension of function to meet so many applications.

JAGUAR 6300S has add-on modules like DIO, AIDIO, Ethernet, EOCR, module. You can choose up to 3 modules.

Add-on Module for Webserver would be available in near future.

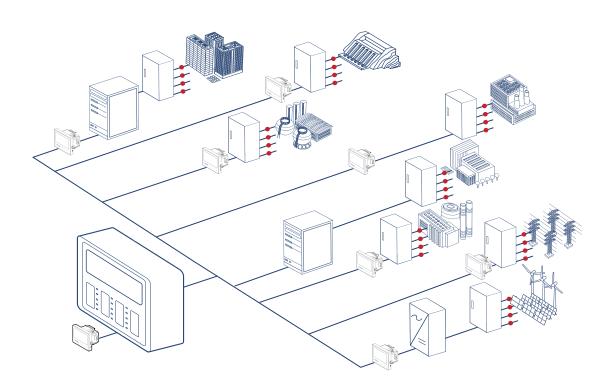
JAGUAR 6300S

APPLICATIONS

JAGUAR 6300S provides power quality information which enables management of energy use, power facility operation and high efficiency device analysis. This presents an energy management supervisor the analytic criterion on both energy use and power quality, which makes it possible to establish appropriate preventive or post measures.

Also it can be used as submeters for high performance monitoring and analysis, system integration & special applications

- 1 Power Energy Monitoring & Analysis
- Metering of Distribution Feeders, Generators, Capacitor Banks and Motors
- 3 Commercial, Industrial Facilities
- 4 Medium and Low voltage system

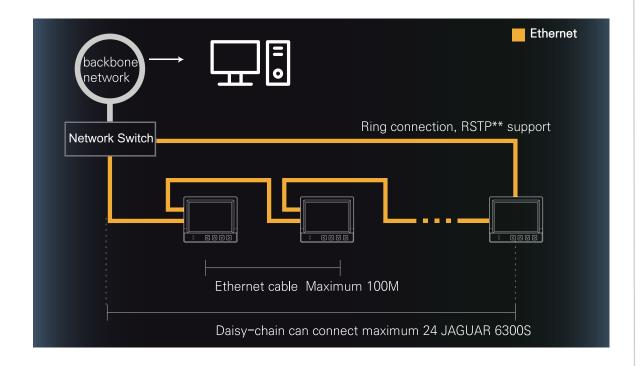


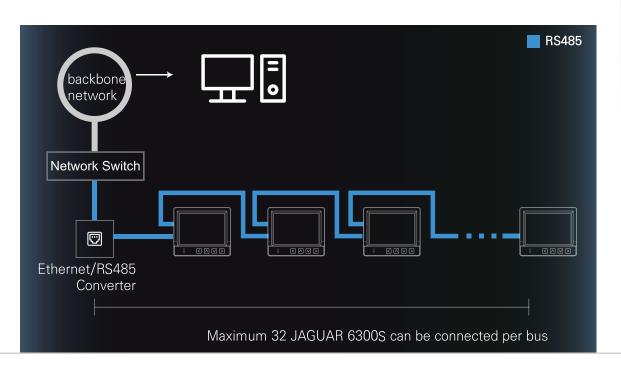
JAGUAR 6300S

COMMUNICATION DIAGRAM

JAGUAR 6300 has two ethernet ports[bridge] which enables network connection just by direct STP/SFTP*cabling between two meters without hubs. JAGUAR 6300S has a separate RS485 port.

> * STP[Shielded Twisted Pair] SFTP[Screened Foiled Twisted Pair] ** RSTP[Rapid Spanning Tree Protocol]





FEATURES

JAGUAR 6300S provides an accurate measurement of 0.2% for voltage and current. Active power/energy conforms to IEC61557-12 Class 0.2S, and Reactive power/energy does to IEC61557-12 Class 0.5S.

Moreover, it provides various information essential for electric quality management of switchgear such as Sag, Swell, Crest Factor, K factor, and harmonics(maximum 63rd).

Display	Real time data LCD display	
General	Sampling / Cycle	128
	Frequency	50/60Hz
	True RMS measurement	
	Voltage, Current, Power, Power Factor	
	Frequency	45 ~ 65Hz
	Demand, Peak Demand	
	Maximum, Minimum	
Power Energy	Imported Energy, Exported Energy	
	Net Power Energy (Imported Energy-Exported Energy)	IEC62053-22 Class 0.2S IEC62053-24 Class 0.5S
	Total Power Energy (Imported Energy+Exported Energy)	
Power Quality	Harmonic	Up to 63rd harmonic
	Voltage/Current THD	
	Crest Factor, K Factor	
	Sag, Swell	IEC61000-4-30 Class S
Event	Sag, Swell event	1-cycle RMS Measuring
	The number of event log	Up to 512
	The number of event waveform storage	Up to 100
MODULES COMBIN	Module installation at the back (Optional)	Max. 3 Modules
		(DIO Module, AIDIO Module, Ethernet Module)
COMMUNICATION		
	RS-485(9600 ~ 38400, MODBUS RTU Protocol) Ethernet(10/100 Base-T, Full Duplex,	
	Ethernet Switching, RSTP, MODBUS TCP Protocol)	
GENERAL		
	UL mark	
	CE mark	
	Power	AC 85 - 265V (50/60Hz)

SPECIFICATION

Measurement Voltage Input			
Measurement Range (Accuracy guaranted)	60 ~ 400Vac		
Minimum Measurement	10Vac		
Frequency Range	45 ~ 65Hz		
Burden	0.08VA/Phase @ 400V		
Voltage Withstand	2,000Vac RMS, 60Hz per mir	nute	
Impedance	$2M\Omega/Phase$		
Wiring	3P4W, 3P3W,1P2W		
Current Measurement Sensor I	nput		
Rating	333mV, 50mA, 100mA, 1A, 5A		
Power			
Power	AC 85 ~ 265V (50/60Hz)		
	DC 100 ~ 300V		
	JAGUAR 6300S	1.5W	
	DIO Module	0.4W	
	AIDIO Module	0.6W	
	Ethernet Module	2.0W	
General			
Weight	JAGUAR 6300S	450g	
	DIO Module	80g	
	AIDIO Module	80g	
	Ethernet Module	90g	
Operating Temperature	-20 ~ +70℃		
Storage Temperature	-25 ~ +80℃		
Operating Humidity	5 ~ 90%(No Condensation sta	te)	
Module Channel			
Channel	Specification		
Digital Input	Wet contact	Rating: 12 ~ 130Vdc	
	Mechanical Relay	Rating: 5A 250Vac / 5A 30Vdc	
Digital Output	Outrant Trus	Latch mode	
	Output Type	Pulse mode: Pulse width 300m	
Analog Input	DC Current	4~20mA	

FUNCTION LIST

(CATEGORY	ITEM	PARAMETERS	REMARK
Metering	Real Time Metering	Phase Voltage	V1, V2, V3, VInavg	MAX : 400V
		Line Voltage	V12, V23, V31, Vllavg	MAX : 690V
		Current	l1, l2, l3, lavg	
		Power	P1, P2, P3, Psum	
		Reactive Power	Q1, Q2, Q3, Qsum	
		Apparent Power	S1, S2, S3, Ssum	
		Power Factor	PF1, PF2, PF3, PF	
		Frequency	F	
		Load Features	Load Features	
	Energy & Demand	Active Energy	Ep_imp, Ep_exp, Ep_total, Ep_net	
		Reactive Energy	Eq_imp, Eq_exp, Eq_total, Eq_net	
		Apparent power	Es_imp, Es_exp, Es_total, Es_net	
		Demand	Dmd_P1, Dmd_P2, Dmd_P3, Dmd_P Dmd_Q1, Dmd_Q2, Dmd_Q3, Dmd_Q Dmd_S1, Dmd_S2, Dmd_S3, Dmd_S Dmd_I1, Dmd_I2, Dmd_I3, Dmd_I	
Monitoring Waveform capt Power quality	Waveform capture	Voltage and Current Waveform	Sag/Dip, Swell, Interruption	
	Power quality	Voltage unbalance factor	U_unbl	
		Current unbalance factor	I_unbl	
		Voltage THD	THD_V1, THD_V2, THD_V3	
		Current THD	THD_I1, THD_I2, THD_I3	
		Individual Harmonics	harmonics 2nd to 63rd	
		Voltage Crest Factor	U_crest	
		Current Crest Factor	I_crest	
		Voltage K Factor	U_kfact	
		Current K Factor	I_ kfact	
	Statistics	Max with Time Stamp Min with Time Stamp		
Others	Power Quality Event Logging	Sag/Dip, Swell, Interruption	Voltage	
C	Data Logging	Data Logging with Time Stamp	V1, V2, V3, I1, I2, I3, Psum, Qsum, Ssum, PF Ep_imp, Ep_Exp, Eq_imp, Eq_exp, Es_imp, Es_Exp, Dmd_P, Dmd_Q, Dmd_S, THD_V1, THD_V2, THD_V3, V_unbl, I_unbl	
	Onboard Memory size	Memory	8MB	
	Communication	RS485 Port, Half Duplex, Galvanic Isolated	Modbus-RTU Protocol	
	Time	Real Time Clock	Year, Month, Date, Hour, Minute, Second	

OPTION MODULES

JAGUAR 6300S option modules can be equipped with a total of three modules, one for each type

MODEL	CHAN	NNEL	SPECIFICATION
DIO Module	Digital Inputs	6 Channel	12 ~ 130Vdc
	Digital Outputs	2 Channel	5A 250Vac / 5A 30Vdc
AIDIO Module	Digital Inputs	4 Channel	12 ~ 130Vdc
	Digital Outputs	2 Channel	5A 250Vac / 5A 30Vdc
	Analog Inputs	2 Channel	4 ~ 20mA DC
Ethernet Module	Ethernet Communication	1 Channel	MODBUS-TCP 10/100 Base-T, Full Duplex Ethernet Switching, RSTP Star, Daisy Chain, Ring Connecting
EOCR Module (Coming in 2019)	EOCR		Over Current(110~125%) Phase Open Lock (Over 200%, 0.5~10sec) Stall (Over 150%, 0.5~10sec)
	ZCT	1 Channel	200mA / 1.5mA

COMMUNICATIONS

Basically it supports for RS-485 communication, and if you need a high-speed transmission of large amounts of data, you can add the Ethernet Module.

TYPE	PORT	
RS-485	1 Port	MODBUS RTU Protocol 9,600 ~ 38,400bps
Ethernet	2 Port	MODBUS TCP Protocol 10/100 BASE-T(Full Duplex) Ethernet Switching, RSTP Star, Dasy Chain, Ring Connecting

ACCURACY

JAGUAR 6	6300S Digital P	ower Quality Meter	
PARAMETER		Display Range	Accuracy
Voltage Phase		0.0 ~ 9,999V, kV	±0.2%
	Line	0.0 ~ 9,999V, kV	±0.2%
Current	Phase	0.0 ~ 9,999A, kA	±0.2%
Power	Apparent	0.0 ~ 9,999kVA, MVA	Based on the Active/Reactive
	Active	0.0 ~ 9,999 kW, MW	IEC 62053-22 Class 0.2S
	Reactive	0.0 ~ 9,999 kvar, Mvar	IEC 62053-24 Class 0.5S
Energy	Apparent	0.0 ~ 99,999,999.9 kVAh	Based on the Active/Reactive
	Active	0.0 ~ 999,99,999.9 kWh	IEC 62053-22 Class 0.2S
	Reactive	0.0 ~ 999,999,99.9 kvarh	IEC 62053-24 Class 0.5S
Demand	Current	0.0 ~ 9,999A, kA	±0.2%
	Active	0.0 ~ 9,999kW, MW	IEC 62053-22 Class 0.2S
	Reactive	0.0 ~ 9,999kvar, Mvar	IEC 62053-24 Class 0.5S
Frequency		45 ~ 65Hz	±0.2%
Power Fact	or	-100% ~ +100%	±0.2%
Phase		0.0 ~ 359.9°	±0.5°
THD	Voltage	0.0 ~ 999.9%	±1.0%
	Current	0.0 ~ 999.9%	±1.0%
Harmonic		Communication data	63rd
Crest Facto	or	0.0 ~ 9.999	±1.0%
K Factor		Communication data	±1.0%

JAGUAR 6300S Module				
PARAMETER Display Range		Accuracy		
Analog Input	0.0 ~ 20.00mA	±0.5%		

Power Quality			
PARAMETER	Specification	Condition	Accuracy
Sag/Swell/Interruption	IEC61000-4-30 Class S	1 Cycle RMS	±0.5%
Voltage/Current THD	IEC61000-4-7	Max 40th Harmonics	±1.0%

STANDARD COMPLIANCE

Accuracy	
IEC62053-22 Class 0.2S	Static meters for active energy
IEC62053-24 Class 0.5S	Static meters for reactive energy at fundamental frequency
Power Quality	
IEC61000-4-30	Power quality measurement methods(Voltage Sag/Swell)
Safety	
EMC	
IEC61000-4-2	Electrostatic Discharge Immunity
IEC61000-4-3	Radiated, radio-frequency, Electromagnetic field Immunity
IEC61000-4-4	Electrical Fast Transient / Burst Immunity
IEC61000-4-5	Surge immunity test
IEC61000-4-6	Immunity to conducted disturbances, Induced by radio-frequency fields
Certification	
IEC, CE, UL	

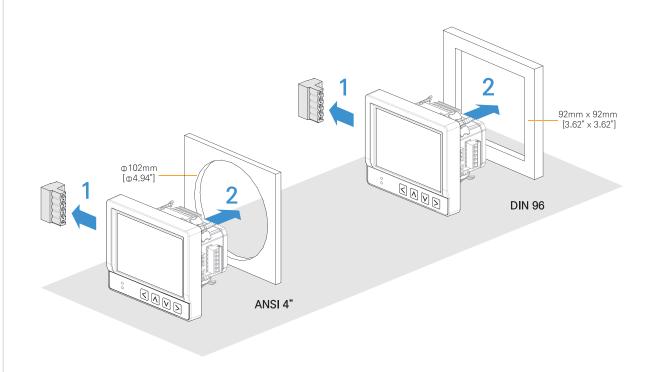
ORDERING INFORMATION

ITEMS	MODEL	DESCRIPTION
Digital Power Quality Meter	JAGUAR 6300S	Voltage, Current, Power Measurement
		Sag/Swell/Interruption
		Harmonic(Max 63rd)
		Crest Factor, K Factor
Module	DIO Module	Digital Input 6channel, Digital Output 2channel
	AIDIO Module	Digital Input 4channel, Digital Output 2channel, Analog Input 2channel
	Ethernet Module	Ethernet Communication 1 Channel
	EOCR Module (coming in 2019)	Over Current, Phase Open, Lock, Stall ZCT 1Channel
Warranty	2 Years	

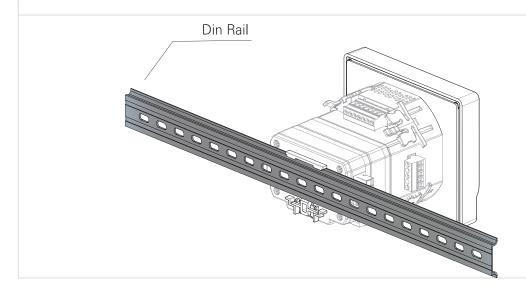
INSTALLATION STEP 1

Panel Mounting

The device can be mounted on Panel (ANSI 4" or DIN 96) by attaching a braket (clip) from backward.



Din Rail Mounting

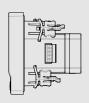


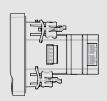
JAGUAR 6300S

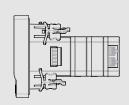
INSTALLATION STEP 2

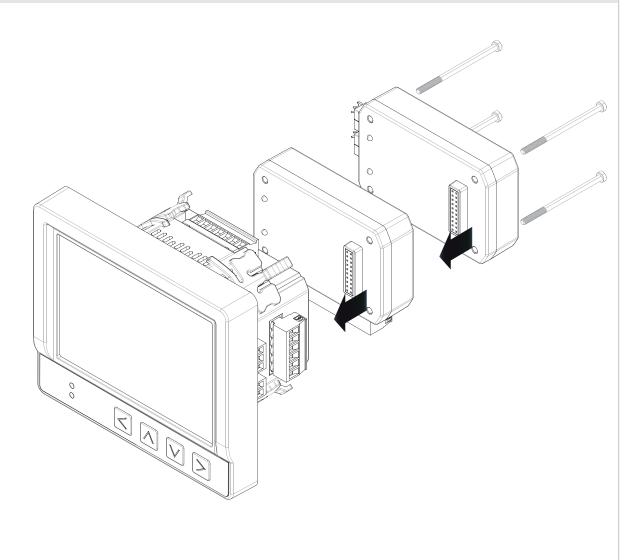
Add-on Module











DIMENSION

Front

JAGUAR 6300S Digital Power Quality Meter 91mm [3,58"] 135mm 79mm [5,31"] [3,11"] 20.5mm [0.80"] 114mm [4.48"] $\triangle \triangle \nabla$

Rear

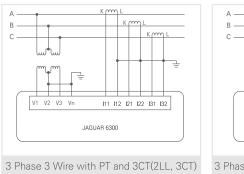
Side

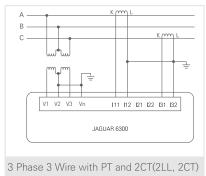
JAGUAR 6300S ADD-ON MODULE 101.5mm [3.99"] 133.5mm [5.25"] 156 mm [6.14"]

JAGUAR 6300S

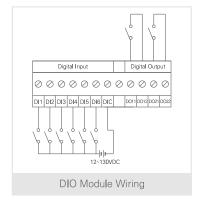
WIRING DIAGRAM

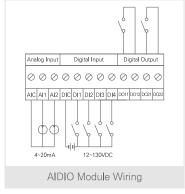
Main body Wiring -⊕ I11 ① 111 -⊕ I11 00000 ② I12 -0--② I12 -② I12 -3 I21 -⊘--⊘-③ I21 ③ I21 -0--**④ 1**22 -0-④ 122 ④ 122 —⑤ I31 -0-⑤ **I**31 ⑤ **I**31 JAGUAR 6300 JAGUAR 6300 −® l32 @ **I**32 [®] 132 3 Phase 4 Wire (3LN, 3CT) 3 Phase 4 Wire with PT (3LN, 3CT) Single Phase 2 Wire(1LN, 1CT)

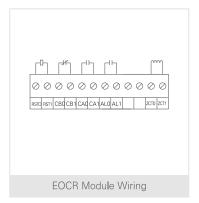




Add-on Module Wiring







High accuracy and low phase shift

Reinforced isolation

REMOTE CT ACCESSORY



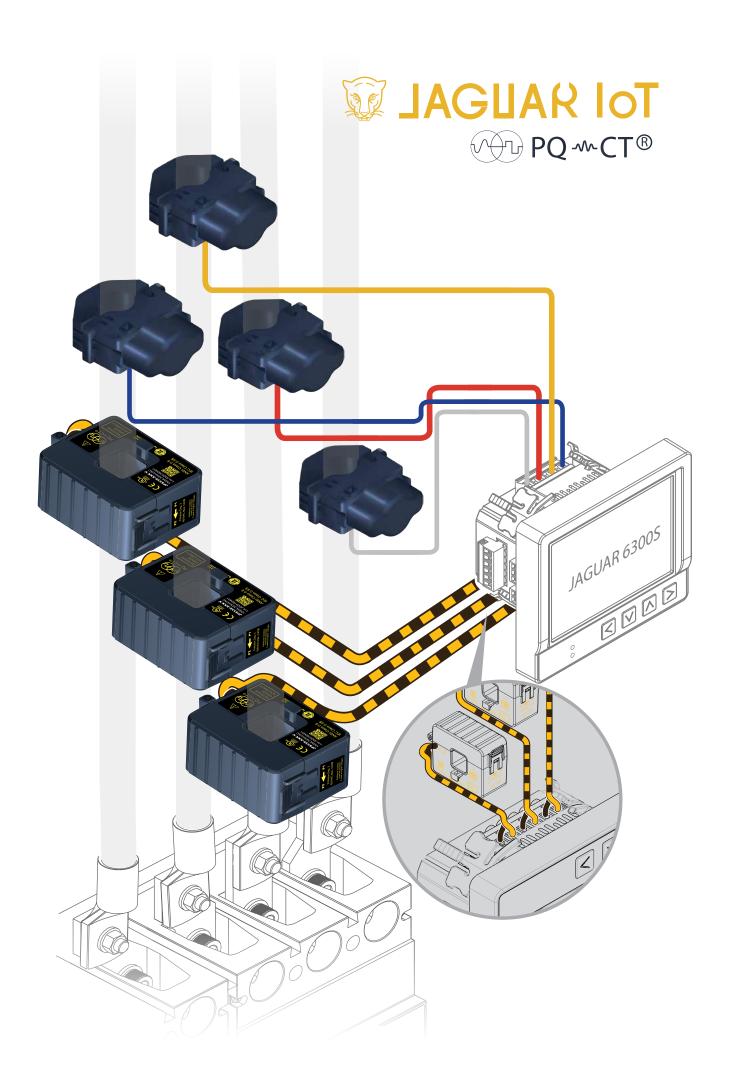
Heterogeneous field

Very low positioning error

Compact case

Easy installation

Contributes towards CO₂ reduction





Split-Core Current Transformer Installation Guide JPSXXX-XXX-X Series



DANGER: Hazardous Voltages Hazard of Electric shock, Explosion, or Arc Flash

The JPSXXX-XXX-X series PQ-CT current transformers measure AC line current in circuits up to 600 Vac and nominal currents up to 1200 amps.

They are easy to install with their split-core design. The PQ-CT is ideal for use in High Performance Power Quality Monitoring (IEC 61000-4-30 Class A or S). It may also be used in other power metering applications.

The JPSXXX-XXX-X may be field-installed inside distribution and control equipment such as switchboards and panelboards, or used in equipment designed for MV / LV substations, power quality meters, energy meters, branch circuit meters, PV monitoring, motor quality diagnostics, traction and data center use, etc.

Precautions

- Install in accordance with ANSI/NFPA 70, "National Electrical Code" (NEC). Follow all local electrical codes.
- ◆Only qualified personnel or licensed electricians should install the current transformer (CT). Line voltages of 120 Vac to 600 Vac can be lethal.
- ◆Do not install CTs where they block ventilation openings.
- ◆Do not install CTs in the area of breaker arc venting.
- ◆The current transformer cannot measure direct current (DC), and excessive DC will degrade AC measuring accuracy.
- ◆Electrical codes prohibit installation of CTs in equipment where they exceed 75% of the wiring space of any cross-sectional area.
- ◆The PQ-CT lead wires are considered Class 1 wiring (as defined by the NEC) and must be installed accordingly. They are not suitable for Class 2 wiring methods and should not be connected to Class2 equipment.
- ◆If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- ◆ Do not install the CT where it may be exposed to: temperatures below -40°C or above 80°C (-40°F to 176°F), excessive moisture, dust, salt spray, or other contamination.
- The PQ-CT may be damaged if dropped or subjected to impact.
 This can result in reduced accuracy.

Pre-Installation Checklist

- ◆The CT's rated current should match or exceed the maximum current of the measured circuit. Ensure that the fuse or circuit breaker's rating does not exceed the CT's maximum continuous current rating.
- ◆For highest accuracy, try to separate the CTs installed on different phases by 1.0 inch (25 mm) to minimize magnetic interference.
- ◆It is preferable to install the CT and meter or monitoring device close to each other. However, you may extend the CT wires by 300 feet (100 m) or more by using shielded twisted-pair cabling and by running the CT wires away from high current and line voltage conductors.

Connecting the Current Transformer

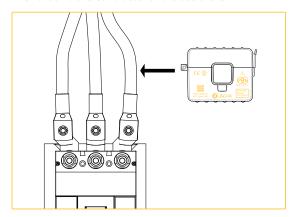
WARNING: Make sure that safe and proper working conditions exist prior to installing the CTs. Open/disconnect the circuit from the power distribution system before installing or servicing current transformers to reduce the risk of electric shock.

No special tools are required to install the PQ-CT, JPSXXX- XXX-X series. In order to connect the CTs to the meter correctly, follow these steps:

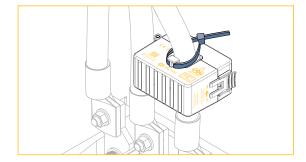
1) Find the correct direction of the current flow. P1 should face the source of current.

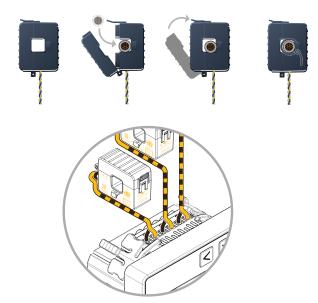
Note: If the CT is mounted backwards, the measured power will be negative.

Make sure all contact surfaces are clean. Debris will increase the magnetic gap, decreasing accuracy. Place the CT around the conductor and close the CT.



3) Use cable ties to ensure the PQ-CT does not move from its position around the conductor.



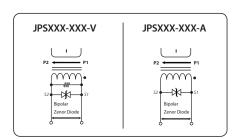


- 4) Connect the secondary leads to the meter. The secondary current from PQ-CT should flow to the meter through S1.
- 5) Close PQ-CT after verifying the installation. You will hear a 'click' if the CT has been closed properly.



Note: If the Yellow and Brown wires are reversed, the measured power will be negative. Be careful to match the CT to the voltage phases being measured. Make sure the \emptyset A CT is measuring the current on the \emptyset A conductor, and the same for phases B and C. Use colored tape or labels to identify the wires.

Wiring Diagram



Specifications

	JPSXXX-XXX						
Model	JPSXXX-XXX-V	JPSXXX-XXX-A					
Rated Amps							
JPS10	5, 15, 20, 30, 50, 70, 100	30, 50, 70, 100					
JPS20	5, 15, 20, 30, 50, 70, 100, 125, 150, 200, 250	30, 50, 70, 100, 125, 150, 200, 250					
JPS33	250, 300, 400, 500, 600	250, 300, 400, 500, 600					
JPS52	400, 500, 600, 800, 1000, 1200, 1600	400, 500, 600, 800, 1000, 1200, 1600					
Input Current	AC current, sine w	ave, 50/60Hz (specify)					
Output	100, 250 333,	-					
Voltage	500mV AC						
Output Current	-	40, 50, 80, 100mA AC					

- ◆Insulation Category:
- CAT IV (service entrance): 600 Vac per IEC 61010-1
- ◆ Standard Accuracy (% of reading)
 IEC Accuracy Class: IEC 61869-2 Class 0.2S or 0.5S
 US Accuracy Class: IEEE/ANSI C57.13, Class 0.3 or 0.6
- ◆Standard Lead Length: 8 ft (2.4m) 18 AWG (Shielded cable option available)
- ◆Bandwidth: 40Hz to 400Hz standard
- ♦Operating Temperature: -40°C to 80°C
- ◆Altitude: Up to 3000 meters, Pollution Degree 3, Humidity up to 95% (non-condensing)
- ◆Construction: Molded cases 120°C UL recognized plastic



SPLIT-CORE CTs JPS series

REVENUE-GRADE (C ROHS





The JPS series revenue-grade, split-core current transformers offer the high accuracy and low phase shift, and the easy two-handed opening and closing, with a safe output values of 100, 250, 333 mVac of voltage output and 50, 80, 100mA ac of current output.

The JPS series fulfill the standards, IEEE/ANSI C57.13, Class 0.3/0.6/1.2 accuracy and IEC 61869-2 Class 0.2S/0.5S/1.0S accuracy.

The JPS series revenue-grade split core CTs are optimized for Renewable energy power monitoring, Distribution circuit metering, and Power quality metering. They have a hinged opening mechanism for easy installation.



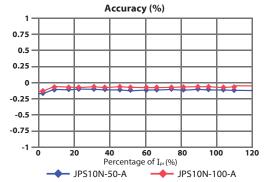
Applications	Features	Benefits
Power Metering.	PC spring, secure locking hinge, one-touch structure	Simple Installation
Sub-metering for Building, Energy efficiency	make easy to install to the existent equipments such as a	Small-size, light-weight
$monitoring, consumption\ analysis, and\ cost\ allocation.$	power distribution boards.	Over-Voltage protection circuit is installed.
Power Quality Monitoring	Isolated plastic case recognized according to UL94-V0	
for Distribution System Equipment.	N type (Nickel core)	
Condition Monitoring	F type (Ferrite core)	
for Conveyers, Pumps, etc.	Lead wire: Yellow / Brown	
Hybrid Inverter for Home Energy Storage.		
Distributed Measurement Systems.		

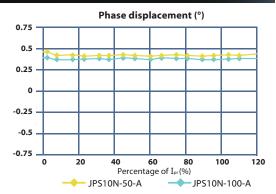
		JPS10X-XXXX-X	JPS20X-XXXX-X	JPS33X-XXXX-X	JPS52X-XXXX-X		
Accuracy		0.2S/0.5S/1.0 class	0.2S/0.5S/1.0 class	0.2S/0.5S class	0.2S/0.5S class		
Rated Amps	A type	30, 50, 70, 100	30, 50, 70, 100, 125, 150, 200, 250	250 200 400 500 400	400, 500, 600, 800, 1000, 1200		
	V type	5, 15, 20, 30, 50, 70, 100	5, 15, 20, 30, 50, 70, 100, 125, 150, 200, 250	250, 300, 400, 500, 600	1600		
Input Current			AC current, sine wav	e, 50/60Hz (specify)			
Output Voltage	(V type)		100, 250, 333, 500, 1000mVac				
Output Current	(A type)	40, 50, 80, 100mAac					
IEC Accuracy Cla	SS	IEC 61869-2 Class 0.2S/0.5S/1.0	IEC 61869-2 Class 0.2S/0.5S/1.0	IEC 61869-2 Class 0.2S/0.5S	IEC 61869-2 Class 0.2S/0.5S		
US Accuracy Clas	is	IEEE/ANSI C57.13, Class 0.3/0.6/1.2	IEEE/ANSI C57.13, Class 0.3/0.6/1.2	IEEE/ANSI C57.13, Class 0.3/0.6	IEEE/ANSI C57.13, Class 0.3/0.6		
Standard Lead L	ength		8 ft (2.4m) 18 AWG (Shie	elded Cable option)			
Bandwidth			40Hz to 400Hz	z standard			
Insulation Cate	gory		(PD2-1000VACrms. CATIII per 61010-	1) 600VACrms. CATIV per 6101	0-1		
Operating Ten	perature	-40°C to 70°C					
Altitude		Up to 3000 meters, Pollution Degree 3, Humidity up to 95% (non-condensing)					
Construction		Molded cases 115°C UL recognized plastic					

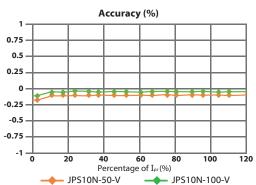
Accuracy class 0.2S/ 0.5	S/ 1.0 accord	ing to IEC	61869-2							
Accuracy Class		_		tio) error a t shown b			se displace f rated cur			je
	1%	5%	20%	100%	120%	1%	5%	20%	100%	120%
0.2S	0.75	0.35	0.2	0.2	0.2	30	15	10	10	10
0.5S	1.5	0.75	0.5	0.5	0.5	90	45	30	30	30
1.0		3.0	1.5	1.0	1.0		180	90	60	60

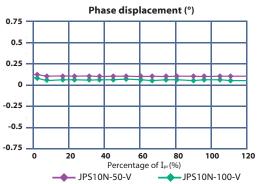
Typical performance characteristics (F(I)[%]&f[°]@25°C/0.05VA@5

0Hz/60Hz)

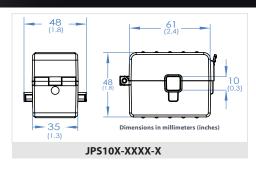


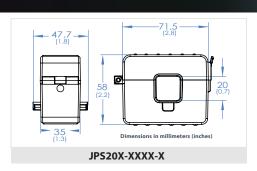


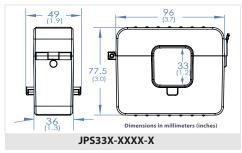


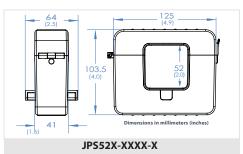


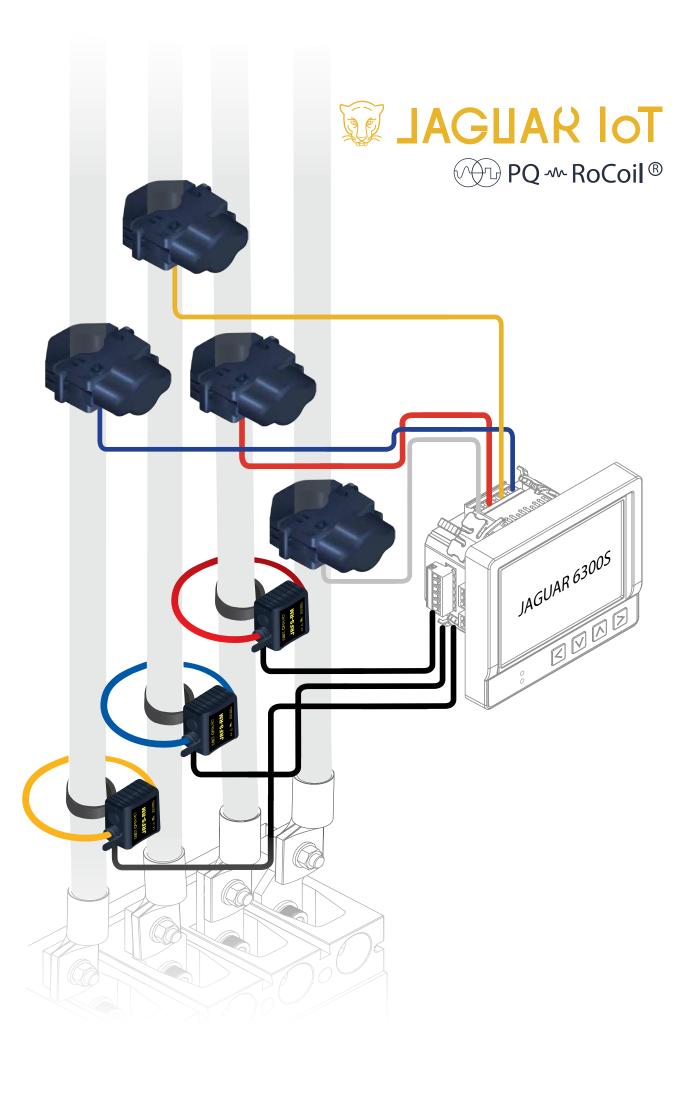
Dimensions













Flexible Rogowski Current Transformer Installation Guide JRFS Series

Overview

The JRFS series flexible Rogowski coil current transformer (PQ-RoCoil) can monitor AC line current in circuits up to 1000 Vac and nominal currents up to 6000 Amps. They can be opened and are flexible for ease of installation around bus bars and multiple conductors. They are intended for field installation within distribution and control equipment such as panelboards, switchboards and industrial control equipment to measure the current on branch circuits and feeders.

The JRFS Series CTs may be used with electric energy meters, like the POWER meters, or for other current measuring purposes. PQ-RoCoils are different in a few key ways from standard CTs. They do not contain a ferromagnetic core, so they cannot saturate, they have excellent linearity, and they have very low phase angle errors. Because they lack a core, it is possible to make them flexible and lightweight. Furthermore, the coil output signal is low voltage (less than one volt AC) and low current (microamps or less), so they are safer than ratio CTs.

JRFS models require an integrating conditioning module, since the output of the coil represents the rate of current change (derivative) of the actual current. PQ-RoCoils are dependent on the uniformity of the windings in the sense coil, making them more sensitive to the position of the conductor(s) being measured in the opening and more sensitive to the magnetic fields from external conductors

Precautions

- Only qualified personnel or licensed electricians should install current transformers (CTs). The line voltages of 120 Vac to 1000 Vac can be lethal!
- These transformers are intended to be installed in accordance with ANSI/NFPA 70, "National Electrical Code" (NEC). Follow all local electrical codes.
- ◆ Do not install CTs in the area of breaker arc venting.
- Do not install CTs where they may be exposed to temperatures below -4°F or above 140°F (-20°C or above 60°C), excessive moisture, dust, salt spray, or other contamination.
- PQ-RoCoil current transformers measure alternating current (AC) only. They do not measure direct current (DC).

Pre-Installation Checklist

- The current transformer's full-scale rated current should normally be somewhat above the maximum current or breaker rating of the circuit being measured.
- It is preferable to install the CT and meter close to each other. However, you may extend the CT wires by 300 feet (100 m) or more by using twisted-pair cable (optionally shielded) and by running the output wires away from high current and line voltage conductors.

Components

The JRFS series Rogowski coil current transformers include the following components:

- Coil red coil with a plastic latch piece to hold the ends together and connect to the coil cable.
- Latch: this is the black plastic piece that holds the ends of the coil together
- ◆ Coil cable: the coil cable is the black shielded cable that runs from the coil to the conditioning module
- Conditioning module: this is the small white plastic box with the six-position green screw terminal. It processes the raw output of the Rogowski coil into a 333 mVac signal that is compatible with POWER meters.
- Output wires: (not shown) these are the white and black twisted wires that connect the conditioning module to the meter.
- Power supply: (not shown) a power supply is required to operate the conditioning module. The power supplies

twelve conditioning modules.

The power supply is not included and must be ordered separately, generally one supply for every three to twelve JRFSs.

Installation Notes

How to use

>>>



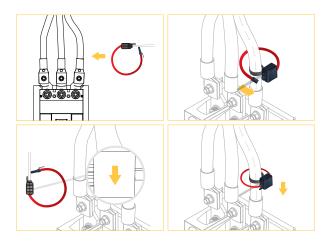






- If the white and black output wires are reversed, the measured power will be negative.
- When connecting to a POWER meter, align the white JRFS lead wire with the white dot on the label, and the black lead wire with the black dot on the label

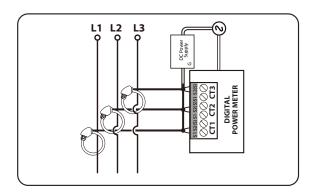
Be careful to match the CT to the voltage phases being measured. Make sure the ØA CT measures the current on the ØA conductor, and the same for phases B and C. Use colored labels or tape to identify the wires.



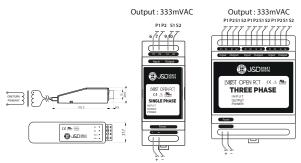


You may double loop the JRFS around a conductor: this halves the opening diameter and halves the effective rated amps. For example, double looping a JRFS-305S (4000A) results in a CT with an opening diameter of 6 inches (15 cm) and a rated current of 2000 amps

OUTDOOR POWER & INDOOR POWER LOAD



INTEGRATOR C/S/T-XXX SERIES



C Type 333mVAC

Power supply : 24V DC

Power supply : 24V DC

Specification

- Accuracy All measurements at 77°F (25°C) and 60 Hz unless otherwise noted. Accuracy: ±1.0% of reading from 5% to 120% of rated primary current
- ◆ External conductor sensitivity: ±2.0% of full-scale maximum. To clarify: if an external conductor carrying this CT's rated current is touching this CT, especially near the latch, then the output of this CT may change by up to ±2.0% of the rated current.
- External conductor sensitivity: ±2.5% of full-scale maximum
 Positioned in corner: ±1.0% maximum (if the CT is placed at a sharp corner of the conductor being measured)
 Positioned in corner: ±2.0% maximum
 - Varying temperature: ±1.5% from -4°F to 140°F (-20°Cto 60°C)
- Positioned in corner: ±1.0% maximum (if the CT is placed at a sharp corner of the conductor being measured)
- ◆ Positioned in corner: ±2.0% maximum
- ◆ Varying temperature : ±1.5% from -4°F to 140°F (-20°C to 60°C)
- lack Phase angle: ± 0.50 degrees (30 minutes) from 5% to 120% of rated current
 - Conductor position sensitivity: ±0.10 degrees max
 - External conductor sensitivity: ±0.25 degrees max
 - Positioned in corner: ±0.10 degrees maximum
 - Varying temperature: -4°F to140°F (-20°C to 60°C): ± 0.10 degrees
- Conditioning Module Output at rated amps: 333.33 mVac (one-third volt)
 - Maximum output: 1.3 Vac Power
 - requirements: 10 30 Vdc (12 Vdc or 24 Vdc recommended), 50 mA typical, 70 mA maximum
- ◆ Environmental Operating temperature: -4°F to 140°F (-20°C to 60°C)
 - Operating humidity: Non-condensing, 5 to 90% relative humidity (RH)
 - Pollution: POLLUTION DEGREE 2
 - Indoor use: Suitable for indoor use.
 - Outdoor use: Suitable for outdoor use when mounted in a NEMA 3R or 4 (IP 66) rated enclosure.



REMOTE CT ACCESSORY JRF MOI XXXXPU series





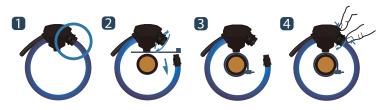


JRF-MOI-PU Rogowski coil current transformer are accurate, flexible, rope style air coils that can be connected around conductors while the conductor is "lives". They are easier to install and measure than traditional split and solid core CT. With their flexible design and light weight, they are ideal for bus bars and irregular-shaped bundles of multiple conductors. The Rogowski coil technology offers low phase shift error, inductance and excellent linearity while largely immune to electromagnetic interference and pulsed DC, providing a high rate of accuracy.

JRF-MOI-PU coils can be used in single and three-phase measurement applications. The output of the built-in voltage integrator provides an AC voltage of 333mV at the rated input current. There is an option to choose a different output voltage between 100-500mV AC at up to 6,000 Amps. The built-in integrator and DC power supply allows simple wiring installation. Multiple rogowski coils can be powered by one AC/DC power supply.

Choose JRF-MOI-PUC if you require ties for fixing to the conductor

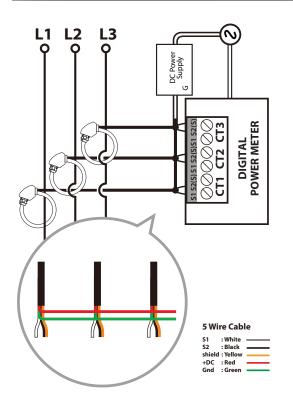


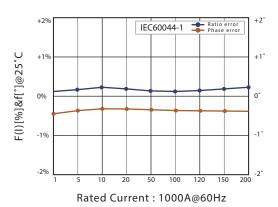


Applications	Features		
Revenue-Grade distribution	AC current probe		
transformer monitoring	Flexible and lightweight		
Energy sub-meters	Easy & quick installation in uninterruptible power line		
Power meters	Insulation CAT III 1,000V AC, IV 600V AC.		
Power quality monitoring	Accuracy Class 0.5/1.0 complying with IEC61869-2, ANSI C57.13		
Condition monitoring	In progress of certification for & CE complying with IEC61010-1		
Distributed measurement systems	IP65, IP67, IP68 (International Protection code)		
	Several size are available from coil length from 285 to 385mm		
	(aperture from 80 to 115 mm)		

Specification			
Model	JRF MOI XXXPU-80	JRF MOI XXXPU-115	
Current Range	250 Amp to	6,000 Amp	
Rated Currents	250, 300, 400, 500, 600, 800, 1k, 1.2k	s, 1.5k, 2k, 2.4k, 2.5k, 3k, 4k, 5k, 6k	
Max Output	1.3V	'AC	
Accuracy	<1% typical at 2% to 1.	20% of rated current	
Rated Output Voltage	333 mV AC		
Power Requirement	+24V DC, ±5%, 70mA Maximum		
Phase Shift	<0.5° at rated current		
Frequency	50/60Hz		
Linearity	±0.2	2%	
Conductor Position Sensitivity	±1% ma	ximum	
Influence of External Fields	±1.5% ma	aximum	
Operating Temperature Range	-25°C ~ +65°C		
Coil length	From 285 to 385mm		
Connection Cable Type	4 x AWG24		
Connection Cable length	on rec	quest	

Ratio & Phase Error Graph





Positioning Error

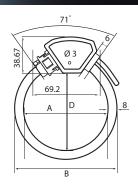


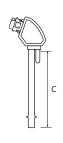
Conductor Position	Typical Error(%)
 Adjacent to the coil edge 	< 0.5%
Adjacent to the clip together mechanism	< 0.5%
Central in the Rogowski loop	0.1%

Note that with a larger conductor the variation of error with conductor position will decrease and approach the calibrated value.

AC / DC Power S	upply		
Models	Application	AC Input Voltage (Nominal)	Nominal Weight
FWA020012A-10B	Desktop power supply, For up to 24 pcs JRF-MOI xxxPU Conditioning Circuits	85-264 Vac (100-240)@1.67 amps	11.5 oz (326 grams)
MDR-10-12	DIN-rail power supply, For up to 12 pcs JRF-MOI xxxPU Conditioning Circuits	85-264 Vac (100-240)@0.84amps	6 oz (170 grams)

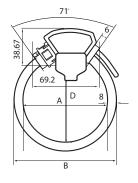
Dimensions (Choose JRF_MOI_PUC If you Require Ties For Attaching to the Cobductor)

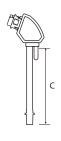




* Unit : mm

Model	Α	В	С	D
JRF MOI xxxPU-80	80	96	285	80
JRF MOI xxxPU-115	115	131	385	115





* Unit: mm

Model	Α	В	С	D
JRF MOI xxxPUC-80	80	96	285	70
JRF MOI xxxPUC-115	115	131	385	105



REMOTE CT ACCESSORY (6 E344623 COLORED JRFS-XXXS/A series







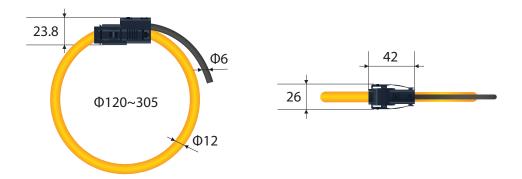
Clamp-on Flexible Rogowski coil Current Transformer has been designed for accurate measurement of wide AC current, pulsed DC or distorted waveforms. It may be used to measure AC current over a wide dynamic range and from 10Hz to 20kHz.



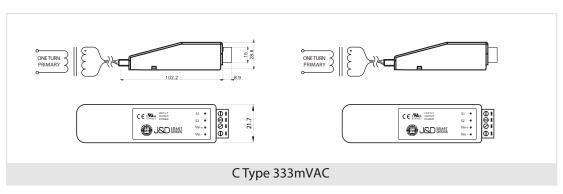
Applications	Features
Very high current monitoring	AC current probe utility by the Rogowski principle
DC ripple measurement	Flexible and lightweight
Harmonics and transients monitoring	Easy & quick installation in uninterruptible power line
Power monitoring & control systems	Available shielding type on request
Applicable in eletronic Watt-hour meter	No danger from open-circuited secondary
	High secondary output voltage & precise linearity error
	Isolated plastic case recognized according to UL94-V0

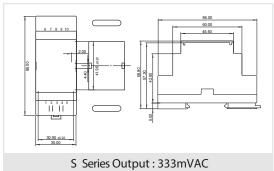
Specification					
Model		JRFS-120X	JRFS-190X	JRFS-305X	
Rated Current		500A ~ 2kA	1kA ~ 4kA	2kA ~ 6kA	
Output Voltage	А Туре		100mV(50Hz) [120mV(60H		
Output voltage	S Type		333mV(50Hz) [399.6mV(60	Hz)] 1kA	
Accuracy			< 1%		
Phase Shift			< 1° at 50/60Hz (typical <	< 0.5°)	
Frequency Range		10Hz to 20kHz			
Output Sensitivity	Tolerance	±10% maximum(Uncalibrated)			
Output Sensitivity Tolerance		±0.5% of reading at 25°C (Calibrated)			
Linearity (10% to 10	00% of range)	±0.2% of reading			
Conductor Position	Sensitivity	±2% maximum			
Influence of Extern	nal Field	±2% maximum			
Working Temp.		-30°C ~ + 60°C			
Storage Temp.		-40°C ∼ + 60°C			
Insulation Category	, ,	CAT III 1000V / CAT IV 600V (PD2-Double Insulation)			
Safety Standards		EN/UL/cUL 61010-1, 61010-2-032			
Testing Voltage		7400V/1min			

Dimensions

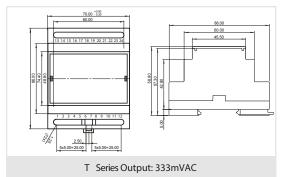


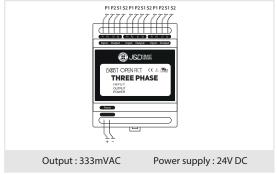
Option: Integrator C/S/T-XXX series













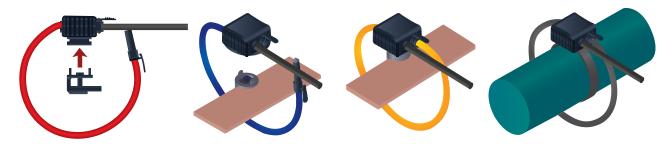
REMOTE CT ACCESSORY JRFS-XXXR/U (X-XXX) series







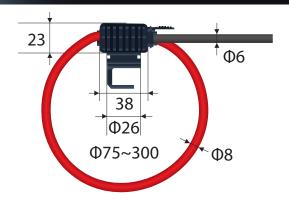
Clamp-on Flexible Rogowski coil Current Transformer has been designed for accurate measurement of AC current with a safe output voltage RMS. JRFS-XXX-R/U (X-XXX) series is the precision current probe for Revenue-Grade Distribution transformer monitoring. With voltage integrator configuration, it can replace the existing CT directly.

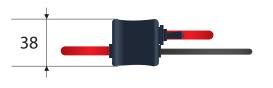


Applications	Features
Very high current monitoring	AC current probe utility by the Rogowski principle
DC ripple measurement	Flexible and lightweight
Harmonics and transients monitoring	Easy & quick installation in uninterruptible power line
Condition monitoring	Insulation CAT $\rm III$ 1000V, $\rm IV$ 600V
Distributed measurement systems	Certificated for UL & CE complying with IEC 61010-1
	Optional size is available from ID 75 to 300mm.
	(ex. ID 80mm)

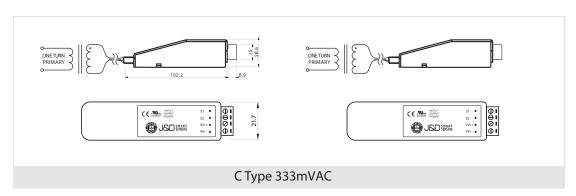
Specification					
Model		JRFS-080X	JRFS-115X	JRFS-180X	JRFS-300X
		JRFS-075X	JRFS-105X	JRFS-170X	JRFS-295X
Rated Current		500A ~ 6kA			
Output Voltage	R Type	104mV(50Hz) [124.8mV(60Hz)] 1kA			
	U Type	35mV(50Hz) [42mV(60Hz)]1kA			
Accuracy		< 1%			
Phase Shift		< 1° at 50/60Hz (typical < 0.5°)			
Frequency Range		10Hz to 20kHz			
Output Sensitivity Tolerance		±10% maximum(Uncalibrated)			
Output Sensitivity Tolerance		±0.5% of reading at 25°C (Calibrated)			
Linearity (10% to 100% of range)		±0.2% of reading			
Conductor Position Sensitivity		±2% maximum			
Influence of External Field		±2% maximum			
Working Temp.		-30°C ~ + 80°C			
Storage Temp.		-40°C ~ + 80°C			
Insulation Category		CAT III 1000V / CAT IV 600V (PD2-Double Insulation)			
Safety Standards		EN/UL/cUL 61010-1, 61010-2-032			
Testing Voltage		7400V/1min			

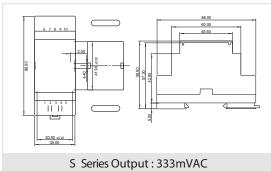
Dimensions

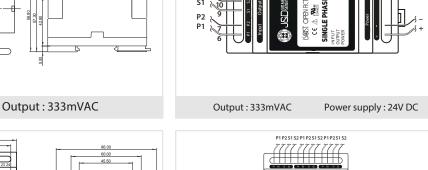


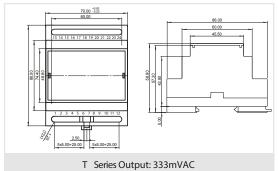


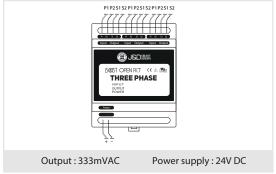
Option: Integrator C/S/T-XXX series

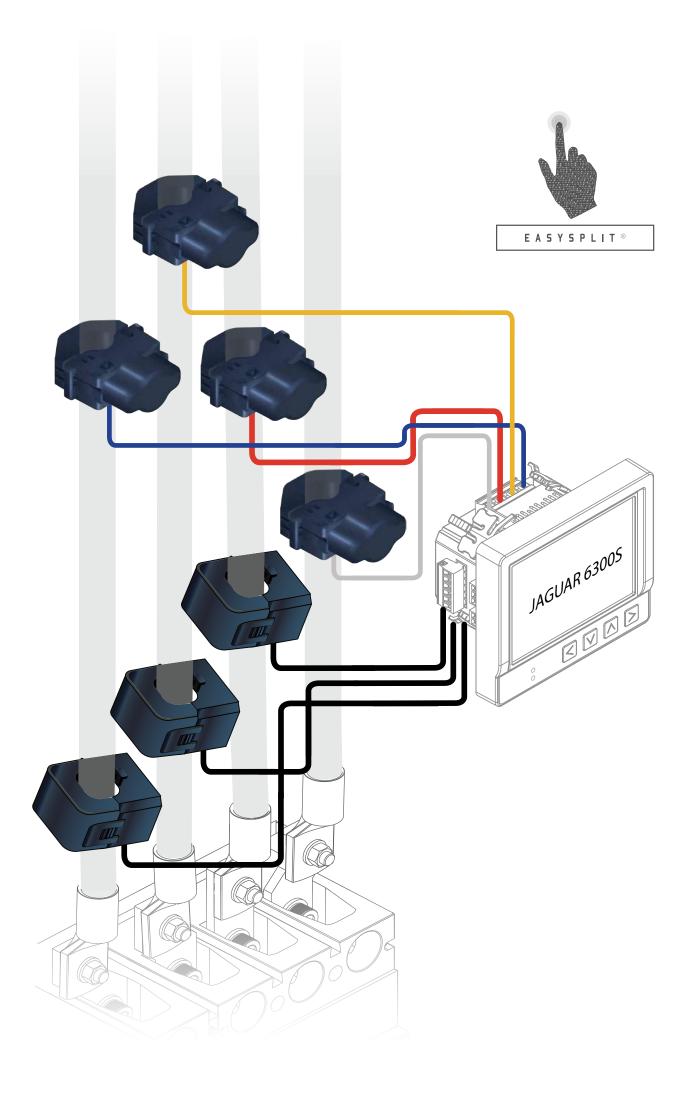












Split-Core Current Transformer Installation Guide



DANGER: Hazardous Voltages Hazard of Electric shock, Explosion, or Arc Electric

Miniature Split core CT is suitable for primary ranges from 5 to 2,400A AC with mA, 0.1 A, 333mV AC secondary. (In this catalog, some ranges are not provided. Find more information for the ranges not shown in this catalog at the website with the QR code at the end of this installation guide.)

It improves both intrinsic errors in low current and errors occurred by external vibration and shock with strong durability and minimum tolerance on cutting cross section of core. Main applications are sub metering, power meter, PLC(Programmable Logic Controller), energy automation and etc.

Precautions

- ◆Install in accordance with ANSI/NFPA 70, "National Electrical Code" (NEC). Follow all local electrical codes.
- Only qualified personnel or licensed electricians should install the current transformer (CT). Line voltages of 120 Vac to 600Vac can be lethal.
- ◆Do not install CTs where they block ventilation openings.
- ◆Do not install CTs in the area of breaker arc venting.
- ◆The current transformer cannot measure direct current (DC), and excessive DC will degrade AC measuring accuracy.
- ◆Electrical codes prohibit installation of CTs in equipment where they exceed 75% of the wiring space of any cross-sectional area.
- ◆The CTs lead wires are considered Class 1 wiring (as defined by the NEC) and must be installed accordingly. They are not suitable for Class 2 wiring methods and should not be connected to Class2 equipment.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- ◆Do not install the CT where it may be exposed to: temperatures below -20°C or above 55°C (-4°F to 131°F), excessive moisture, dust, salt spray, or other contamination.
- ◆The CTs may be damaged if dropped or subjected to impact.
 This can result in reduced accuracy.

Pre-Installation Checklist

- ◆The CT's rated current should match or exceed the maximum current of the measured circuit. Ensure that the fuse or circuit breaker's rating does not exceed the CT's maximum continuous current rating.
- ◆For highest accuracy, try to separate the CTs installed on different phases by 1.0 inch (25 mm) to minimize magnetic interference.
- ◆It is preferable to install the CT and meter or monitoring device close to each other. However, you may extend the CT wires by 300 feet (100 m) or more by using shielded twisted-pair cabling and by running the CT wires away from high current and line voltage conductors.

Connecting the Current Transformer

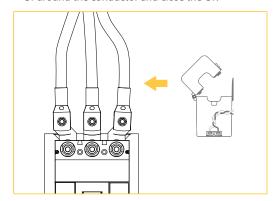
WARNING: Make sure that safe and proper working conditions exist prior to installing the CTs. Open/disconnect the circuit from the power distribution system before installing or servicing current transformers to reduce the risk of electric shock.

No special tools are required to install the Current Transformer series. In order to connect the CTs to the meter correctly, follow these steps:

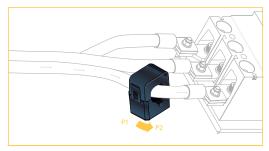
1) Find the correct direction of the current flow. P1 should face the source of current.

Note: If the CT is mounted backwards, the measured power will be negative.

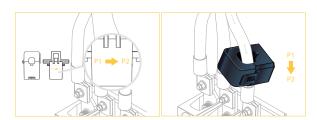
 Make sure all contact surfaces are clean. Debris will increase the magnetic gap, decreasing accuracy. Place the CT around the conductor and close the CT.



3) Use cable ties to ensure the CTs does not move from its position around the conductor.

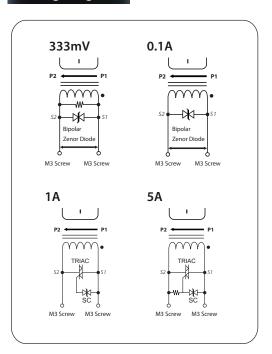


- 4) Connect the secondary leads to the meter. The secondary current from CTs should flow to the meter through S1.
- 5) Close CTs after verifying the installation. You will hear a 'click' if the CT has been closed properly.



Note: If the white and black wires are reversed, the measured power will be negative. Be careful to match the CT to the voltage phases being measured. Make sure the \emptyset A CT is measuring the current on the \emptyset A conductor, and the same for phases B and C. Use colored tape or labels to identify the wires.

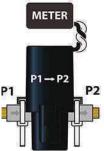
Wiring Diagram



Installation Notes

How to use







Specifications

◆Accuracy: Class 0.5S / Class 1.0 (as indicated in each data sheet)

◆System Voltage: 720V(0.72kV)

◆Overload withstand: 1.2 times rated current continuously

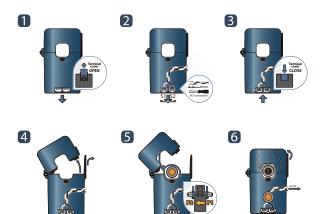
◆Compliant with: IEC/EN61869-2 & IEC61010-1 ◆Relative Humidity: 0-85% non-condensing

◆Test Voltage : 3kV for 1minute

◆Operating Temperature : -20°C to 55°C

◆Frequency Range: 50/60Hz ◆Protection Level: 3.0V0-P

♦Insulation Category : CAT II or CAT III 600VAC



JM21X-XXX-333mV AC



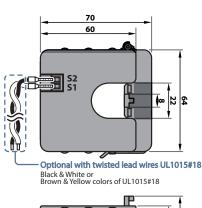


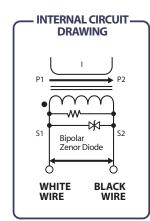
JM21X series of split-core current transformer offers 333mV AC at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JM21X series to meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact meter design and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.

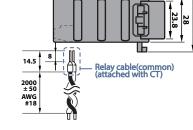


Applications	Features	Benefits	Notice
Power meter	Panel or DIN rail mountable, output-terminal,	Small-size, light-weight	Core contact surface is waterproofed, however if it
Switchgear	secure locking hinge, one-touch structure	Simple Installation	gets rusty, you could reuse after removing rusts with
Distributed	easily to install to existing equipment such as a	Over-Voltage protection circuit is	spraying WD-40 or CRC5-56 on the rusted side.
measurement systems	power distribution board Isolated plastic case	installed.	Do not use any other chemicals except WD-40 or
General Sets	recognized according to UL94-V0		CRC5-56 on housing or any parts.
Control panels	UL / EN 61010-1 certified		Additionally, CTs are deliverable with customized
			output lead cable.

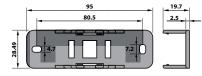
Specification			
Accuracy	IEC Class 0.5S, 1.0 / ANSI Class 0.6, 1.2		
Output Terminals	Terminal Block (2P)		
System Voltage	720V(0.72kV)		
Overload withstand	1.2 times rated current continuously		
Compliant with	IEC/EN61869-2 & IEC61010-1 & ANSI C57.13		
Operating Temperature Range	-20°C to 55°C		
Relative Humidity	0-85% non-condensing		
Test Voltage	3kV AC for 1minute		
Frequency Range	50/60Hz		
Protection Level	3.0V0-P		
Insulation Category	CATⅢ 600V AC / PD2		

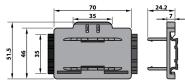


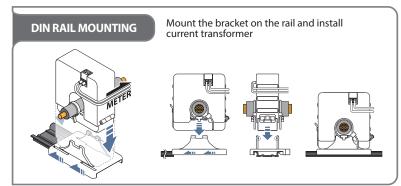


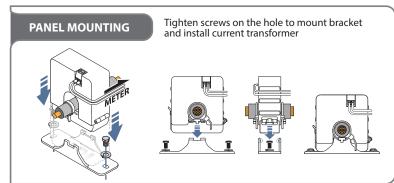


PANEL MOUNT DIN RAIL MOUNT









How to Order / Model Reference eg JM21X-000 /333m/ Model JM21X Primary Current Select code from CT table Secondary Voltage 333mV AC 3 3 3 m/

Current Transformer Rated Values

Primary	Metering Burden(VA)			Metering Burden(VA)			
Current	cl. 0.5S	cl. 1	cl. 3	Code			
(A)	cl. 0.6	cl. 1.2	cl. 2.4				
5	0.0006	0.0006		005			
15	0.0015	0.0015		015			
20	0.002	0.002		020			
30	0.0035	0.0035		030			
50	0.005	0.005		050			
70	0.008	0.008		070			
100	0.01	0.01		100			
150	0.02	0.02		150			
200	0.02	0.02		200			
250	0.03	0.03		250			
	(JM21N)	(JM21F)					
		333	BmV AC Sec	ondary			

Accuracy conforms to IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In



Precautions for the Warranty of Quality

- Split-core CT must be handled with care. A damage caused from the careless handling will not be covered by warranty.
- The product is designed to meet operating environments defined by the industrial standard IP20.
- Be sure about the right Primary current direction and terminal allocation. Otherwise any power measurements result in wrong values!
- Do not install the product if an application exceed the specifications of the product.
- Recommended to use the terminals specified by J&D.



Check Point for the Accurate Measurement

- Protection circuit built in inside of the product for user safety. An additional external protection circuit can impact the characteristics.
- The product is designed for measuring sinusoidal 50/60Hz of primary current. Be aware that it is possible to occur the significant error if it is used to measure non-sinusoidal.
- Use Split-core CT with proper diameter to fit the conductor, otherwise it may cause the ratio error and the phase shift.
- Be careful to install Split-core CT without any pollutions on the splitting core surfaces. The pollutions such as moisture, dust and rust can cause metering errors. After removing the pollutions, recommended to use WD-40 or CRC5-56 on the core surfaces.
- Check whether the secondary leads is connected correctly or not. If the connection is not correctly, the secondary output could be lower than the expected one.



Remarks for the Customized Products

- Please provide the technical requirements for a technical evaluation.
- The color of housing is changeable upon the customer's requirements.
- $\boldsymbol{\cdot}$ The leads can be mounted on the terminals by J&D.
- A protective tailor-made housing is available.

JSXXS-XXX333mV





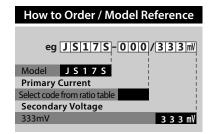


JS series of split-core current transformer offers 333mV at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JS series to a meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.



Applications	Features	Benefits	Notice
Energy sub - meter	PC spring, output-terminal, secure locking hinge,	Small-size, light-weight	Core contact surface is waterproofed, however if it
Power meters	one-touch structure make easy to install to the	Simple Installation	gets rusty, you could reuse after removing rusts with
Power quality monitoring	existent equipments such as a power	Over-Voltage protection	spraying WD-40 or CRC5-56 on the rusted side.
HVAC&Pumps, etc	distribution boards.	circuit is installed.	Do not use any other chemicals except WD-40 or
Distributed measurement	Isolated plastic case recognized according to		CRC5-56 on housing or any parts.
system	UL94-V0		Customizing output lead wire
	UL / EN 61010 - 1 certified		

Specification			
Accuracy	Class 0.5S / 1.0		
Output Terminals	2 X M3-Screw, with Terminals cover		
System Voltage	720V(0.72kV)		
Overload withstand	1.2 times rated current continuously		
Compliant with	IEC/EN61869-2 & IEC61010-1		
Operating Temperature Range	-20°C to 55°C		
Relative Humidity	0-85% non-condensing		
Test Voltage	3kV for 1minute		
Frequency Range	50/60Hz		
Protection Level	3.0V0-P		
Insulation Category	CAT II or CAT III 600VAC		



Cu	Current Transformer Ratios				
Duimanu	Metering Burden(VA)				
Primary Current	cl. 0.2S	cl. 0.5S	cl. 1	Code	
(A)	cl. 0.3	cl. 0.6	cl. 1.2		
200		0.02		200	
			333mV S	econdary	

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

How to Order / Model Referen	nce
eg JS24S-000/33	3 mV
	- 1
Model JS24S	i i
Primary Current	- 1
Select code from ratio table	- 1
Secondary Voltage	- 1
333mV 3 3	3 mV

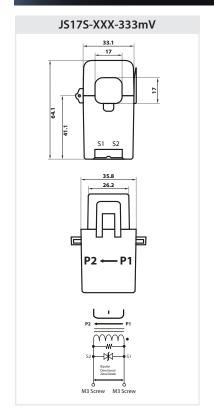
Current Transformer Ratios					
Primary	Mete	Metering Burden(VA)			
Current	cl. 0.2S	cl. 0.5S	cl. 1	Code	
(A)	cl. 0.3	cl. 0.6	cl. 1.2		
250		0.03		250	
300		0.03		300	
			333mV S	econdary	
				,	

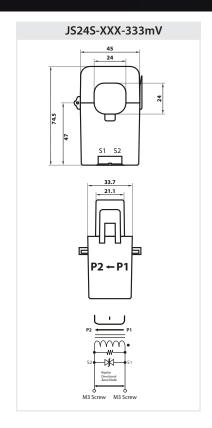
Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

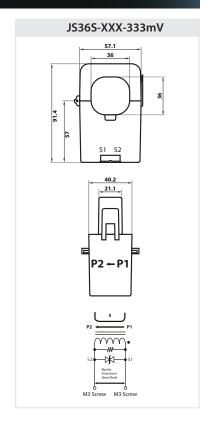
How to Order / Model Reference
eg [J S 3 6 S]-[0 0 0]/[3 3 3 m/
Model J S 3 6 S Primary Current
Select code from ratio table
Secondary Voltage
333mV 3 3 mV

Current Transformer Ratios				
Primary	Mete			
Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
300		0.05		300
400		0.07		400
500		0.06		500
600		0.07		600
			333mV S	econdary

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

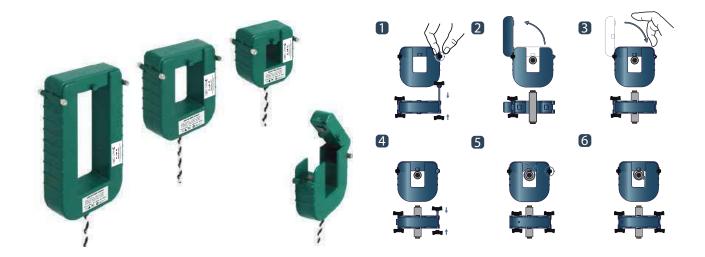






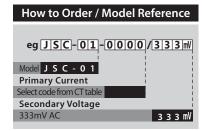
JSC-XX-333mV AC

JSC series of split-core current transformer offers 333mV AC at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JSC series to a meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.



Applications	Features	Benefits	Notice
Power meter	High quality comprehensive measurement	Faster installation	Core contact surface is waterproofed, however if it
Switchgear	Available in a wide range of transformer ratings	Cost effective	gets rusty, you could reuse after removing rusts with
Distributed	Accuracy up to Class 0.5S	Long product life	spraying WD-40 or CRC5-56 on the rusted side.
measurement systems			Do not use any other chemicals except WD-40 or
General Sets			CRC5-56 on housing or any parts.
Control panels			Additionally, CTs are deliverable with customized
			output lead cable length.

Specification			
Accuracy	IEC Class 0.5S / ANSI Class 0.6		
Leads	18AWG, 600V AC		
System Voltage	720V(0.72kV)		
Overload withstand	1.2 times rated current continuously		
Compliant with	IEC/EN61869-2 & IEC61010-1 & ANSI C57.13		
Operating Temperature Range	-20°C to 60°C		
Relative Humidity	0-90% non-condensing		
Test Voltage	3kV AC for 1minute		
Frequency Range	50/60Hz		
Protection Level	3.0V0-P		
Insulation Category	CATIII 600V AC / PD2		



Current Transformer Rated Values

Primary	Metering Burden(VA)			
Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
250		0.035		0250
400		0.035		0400
	333mV AC Secondary			ndary

Accuracy conforms to IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120% of In

How to Order / Model Reference
eg JSC-02-0000/333mV
Model J S C - 0 2
Primary Current
Select code from CT table
Secondary Voltage
333mV AC 3 3 3 mV

Current Transformer Rated Values

Primary	Mete	ring Burde	n(VA)	
Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
400		0.035		0400
600		0.035		0600
800		0.035		0800
1000		0.035		1000
1200		0.035		1200
333mV AC Secondary				

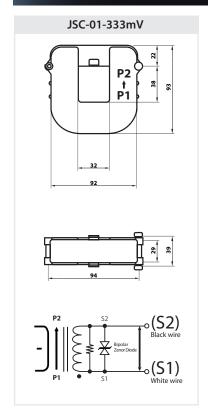
Accuracy conforms to IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

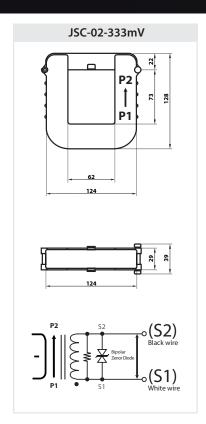
How to Order / Model Reference eg JSC-03-0000 /333mV Model J S C - 0 3 Primary Current Select code from CT table Secondary Voltage 333mV AC 3 3 3 mV

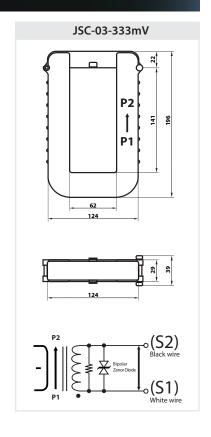
Current Transformer Rated Values

Duimanus	Mete	ring Burde	en(VA)	
Primary Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
800		0.035		0800
1000		0.035		1000
1200		0.035		1200
1600		0.035		1600
2000		0.035		2000
2400		0.035		2400
		333m	V AC Seco	ndary

Accuracy conforms to IEC/EN61869-2& IEEE/ANSI C57.13 meets the measuring range from 1 to 120% of In







SPLIT-CORE CURRENT TRANSFORMER (\$\frac{1}{2}\frac{1}{4}\text{List}\$ (\frac{1}{2}\frac{1}{4}\text{List}\$ (\frac{1}{2}\frac{1}{4}\text{List}\$) JM21X-XXX-100mA AC

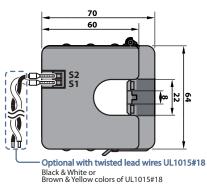


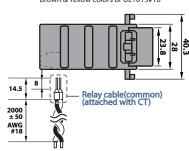
JM21X series of split-core current transformer offers 100mA AC at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JM21X series to meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact meter design and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.

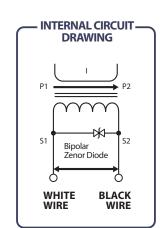


Applications	Features	Benefits	Notice
Power meter	Panel or DIN rail mountable, output-terminal,	Small-size, light-weight	Core contact surface is waterproofed, however if it
Switchgear	secure locking hinge, one-touch structure	Simple Installation	gets rusty, you could reuse after removing rusts with
Distributed	easily to install to existing equipment such as a	Over-Voltage protection circuit is	spraying WD-40 or CRC5-56 on the rusted side.
measurement systems	power distribution board Isolated plastic case	installed.	Do not use any other chemicals except WD-40 or
General Sets	recognized according to UL94-V0		CRC5-56 on housing or any parts.
Control panels	UL / EN 61010-1 certified		Additionally, CTs are deliverable with customized
			output lead cable.

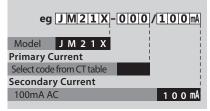
Specification			
Accuracy	IEC Class 0.5S, 1.0 / ANSI Class 0.6, 1.2		
Output Terminals	Terminal Block(2P) - PART NUMBER : LM5.08/02/90 SW(black)		
System Voltage	720V(0.72kV)		
Overload withstand	1.2 times rated current continuously		
Compliant with	IEC/EN61869-2 & IEC61010-1 & ANSI C57.13		
Operating Temperature Range	-20°C to 55°C		
Relative Humidity	0-85% non-condensing		
Latch/Unlatch	about 100 times		
Test Voltage	3kV AC for 1minute		
Frequency Range	50/60Hz		
Protection Level	5.1V0-P		
Insulation Category	CATIII 600V AC / PD2		







How to Order / Model Reference

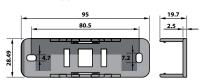


Current Transformer Rated Values

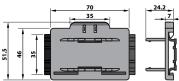
Primary	Mete	ing Burden(VA)		
Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
50		0.035		050
70		0.035		070
100	0.035	0.035		100
125	0.035	0.035		125
150	0.035	0.035		150
200	0.035	0.035		200
250	0.035	0.035		250
	(JM21N)	(JM21F)		
		10	0mA AC Sec	ondary

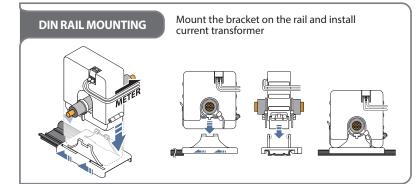
Accuracy conforms to IEC IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

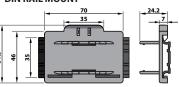
PANEL MOUNT



• DIN RAIL MOUNT





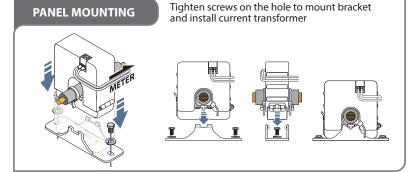


Precautions for the Warranty of Quality

- Split-core CT must be handled with care. A damage caused from the careless handling will not be covered by warranty.
- \bullet The product is designed to meet operating environments defined by the industrial standard IP20.
- Be sure about the right Primary current direction and terminal allocation. Otherwise any power measurements result in wrong
- Do not install the product if an application exceed the specifications of the product.
- Recommended to use the terminals specified by J&D.



- Protection circuit built in inside of the product for user safety.
 An additional external protection circuit can impact the characteristics.
- The product is designed for measuring sinusoidal 50/60Hz of primary current. Be aware that it is possible to occur the significant error if it is used to measure non-sinusoidal.
- Use Split-core CT with proper diameter to fit the conductor, otherwise it may cause the ratio error and the phase shift.
- Be careful to install Split-core CT without any pollutions on the splitting core surfaces. The pollutions such as moisture, dust and rust can cause metering errors. After removing the pollutions, recommended to use WD-40 or CRC5-56 on the core surfaces.
- Check whether the secondary leads is connected correctly or not. If the connection is not correctly, the secondary output could be lower than the expected one.



Remarks for the Customized **Products**

- · Please provide the technical requirements for a technical evaluation.
- · The color of housing is changeable upon the customer's requirements.
- · The leads can be mounted on the terminals by J&D.
- · A protective tailor-made housing is available.

JSXXS-100mA AC





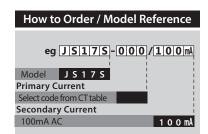


JS series of split-core current transformer offers 100mA AC at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JS series to a meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.



Applications	Features	Benefits	Notice
Power meter	PC housing, output-terminal, secure locking	Small-size, light-weight	Core contact surface is waterproofed, however if it
Switchgear	hinge, one-touch structure make easy to	Simple Installation	gets rusty, you could reuse after removing rusts with
Distributed measurement systems	install to the existent equipments such as a power distribution boards.	Over-Voltage protection circuit is installed.	spraying WD-40 or CRC5-56 on the rusted side. Do not use any other chemicals except WD-40 or
General Sets	Isolated plastic case recognized according		CRC5-56 on housing or any parts.
Control panels	to UL94-V0		Additionally, CTs are deliverable with customized
	UL / EN 61010-1 certified		output lead cable length.

Specification	
Accuracy	IEC Class 1.0 / ANSI Class 1.2
Output Terminals	2 X M3-Screw, with Terminals cover
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & IEC61010-1 & ANSI C57.13
Operating Temperature Range	-20°C to 55°C
Relative Humidity	0-85% non-condensing
Test Voltage	3kV AC for 1minute
Frequency Range	50/60Hz
Protection Level	3.0V0-P
Insulation Category	CATIII 600V AC / PD2



Current Transformer Rated Values

Duimanus	Mete	ring Burde	en(VA)	
Primary Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
200			0.035	200
	100mA AC Secondary			

Accuracy conforms to IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

How to Order / Model Reference				
eg JS24S-000/	1 0 0 mA			
Model JS24S				
Primary Current				
Select code from CT table				
Secondary Current				
100mA AC	1 0 0 mA			

Current Transformer Rated Values

Duimann	Mete	ing Burde	en(VA)	
Primary Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
250			0.035	250
300			0.035	300
		100m	nA AC Seco	ondary

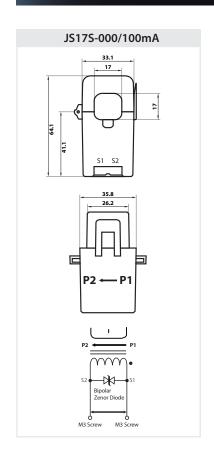
Accuracy conforms to IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120% of In

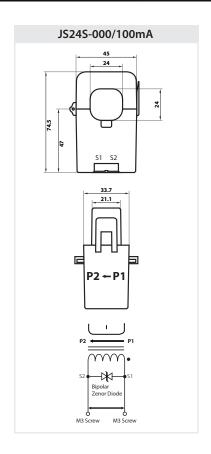
How to	How to Order / Model Reference				
eg	JS36S-000	0/100mA			
Model	J S 3 6 S	-			
Primary C	urrent	1 1			
Select code	from CT table	i i			
Secondar	y Current	_ ;			
100mA A	C	1 0 0 mA			

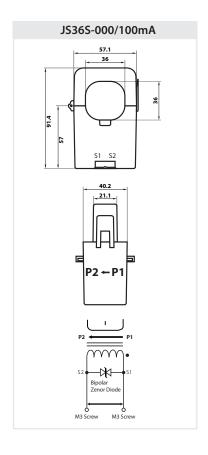
Current Transformer Rated Values

Duimanus	Meter	ing Burde	en(VA)	
Primary Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
300			0.035	300
400			0.035	400
500			0.035	500
600			0.035	600
	100mA AC Secondary			
TooliiA AC Secondary				

Accuracy conforms to IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In



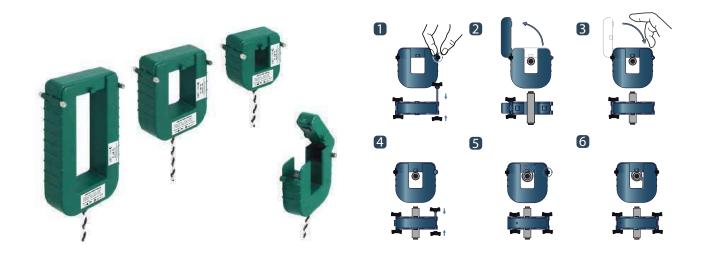




SPLIT-CORE CURRENT TRANSFORMER JSC-XX-100mA AC

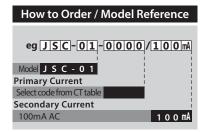


JSC series of split-core current transformer offers 100mA AC at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JSC series to a meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.



Applications	Features	Benefits	Notice
Power meter	High quality comprehensive measurement	Faster installation	Core contact surface is waterproofed, however if it
Switchgear	Available in a wide range of transformer ratings	Cost effective	gets rusty, you could reuse after removing rusts with
Distributed	Accuracy up to Class 0.5S	Long product life	spraying WD-40 or CRC5-56 on the rusted side.
measurement systems			Do not use any other chemicals except WD-40 or
General Sets			CRC5-56 on housing or any parts.
Control panels			Additionally, CTs are deliverable with customized
			output lead cable length.

Specification	
Accuracy	IEC Class 0.5S / ANSI Class 0.6
Leads	18AWG, 600V AC
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & IEC61010-1 & ANSI C57.13
Operating Temperature Range	-20°C to 60°C
Relative Humidity	0-90% non-condensing
Test Voltage	3kV AC for 1 minute
Frequency Range	50/60Hz
Protection Level	3.0V0-P
Insulation Category	CATⅢ 600V AC / PD2



Current	Transfo	rmer Ra	ated V	alues

Primary	Meter	ring Burde	en(VA)	
Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
250		0.035		0250
400		0.035		0400
100mA AC Secondary				

Accuracy conforms to IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

How to Order / Model Reference			
eg JSC-02-0000/100mA			
Model J S C - 0 2			
Primary Current			
Select code from CT table			
Secondary Current			
100mA AC 1 0 0 mA			

Current 1		

Metering Burden(VA)			en(VA)	
Current (A)	cl. 0.2S	cl. 0.5S	cl. 1	Code
	cl. 0.3	cl. 0.6	cl. 1.2	
400		0.035		0400
600		0.035		0600
800		0.035		0800
	100mA AC Secondary			

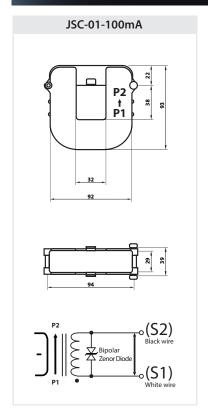
Accuracy conforms to IEC/EN61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

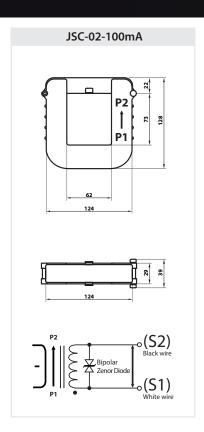
How to Order / Model Reference
eg JSC-03-0000/100mA
CG[7]2 C [0]2 [0]0 0 0 /[1]0 0 IIN
!!!!!
Model J S C - 0 3
Primary Current
Select code from CT table
Secondary Current
100mA AC 1 0 0 mA
100 1111

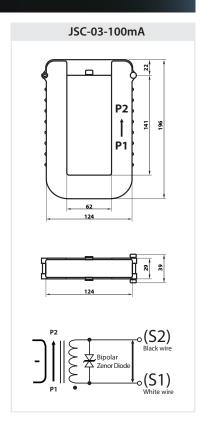
Current Transformer Rated Values

Duimanus	Mete	Metering Burden(VA)		
Primary Current	cl. 0.2S	cl. 0.5S	cl. 1	Code
(A)	cl. 0.3	cl. 0.6	cl. 1.2	
800		0.035		0800
1000		0.035		1000
1200		0.035		1200
100mA AC Secondary				

Accuracy conforms to IEC/EN61869-2& IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In





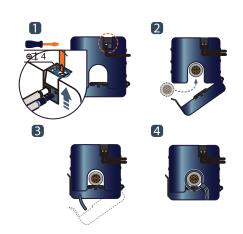


JM21X-XXX-1A AC



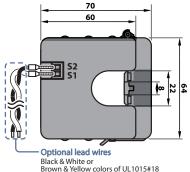
JM21N series of split-core current transformer offers 1A at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JM21N series to a meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.

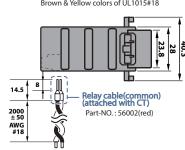




Applications	Features	Benefits	Notice
Power meter Switchgear	Panel or DIN rail mountable, output-terminal, secure locking hinge, one-touch structure	Small-size, light-weight Simple Installation	Core contact surface is waterproofed, however if it gets rusty, you could reuse after removing rusts with
Distributed measurement systems	easily to install to existing equipment such as a power distribution board Isolated plastic case	Over-Voltage protection circuit is installed.	spraying WD-40 or CRC5-56 on the rusted side. Do not use any other chemicals except WD-40 or
General Sets	recognized according to UL94-V0		CRC5-56 on housing or any parts.
Control panels	UL / EN 61010-1 certified		Additionally, CTs are deliverable with customized output lead cable.

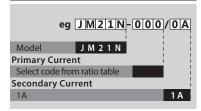
Specification		
Accuracy	IEC Class 0.5S, 1.0 / ANSI Class 0.6, 1.2	
Output Terminals	Terminal Block(2P) - PART NUMBER : LM5.08/02/90 SW(black)	
System Voltage	720V(0.72kV)	
Overload withstand	1.2 times rated current continuously	
Compliant with	IEC/EN61869-2, IEEE/ANSI C57.13 & IEC61010-1	
Operating Temperature Range	-20°C to 55°C	
Relative Humidity	0-85% non-condensing	
Latch/Unlatch	about 100 times	
Test Voltage	3kV for 1minute	
Frequency Range	50/60Hz	
Protection Level	Bipolar 6.5Vp	
Insulation Category	CAT II or CAT III 600VAC	





P1 P2 TRIAC S2 WHITE BLACK WIRE

How to Order / Model Reference

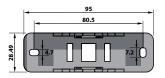


Current Transformer Ratios

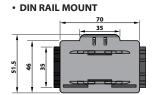
Duimann	Mete	Metering Burden(VA)		
Primary Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
100		0.2		100
125		0.2		125
150		0.2		150
200	0.2			200
250	0.2			250
	1A Secondary			

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

PANEL MOUNT





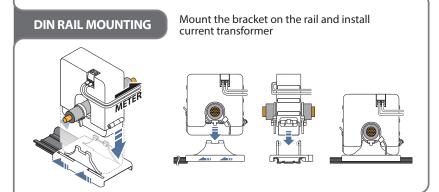




5 YEARS

Precautions for the Warranty of Quality

- Split-core CT must be handled with care. A damage caused from the careless handling will not be covered by warranty.
- The product is designed to meet operating environments defined by the industrial standard IP20.
- \bullet Be careful to install the product with the correct polarity.
- Do not install the product if an application exceed the specifications of the product.
- Recommended to use the terminals specified by J&D.





Check Point for the Accurate Measurement

- Protection circuit built in inside of the product for user safety. An additional external protection circuit would be impacted on the feature.
- The product is designed for measuring sinusoidal 50/60Hz of primary current. Be aware that it is possible to occur the significant error if it is used to measure non-sinusoidal.
- Use Split-core CT with proper diameter to fit the conductor, otherwise it may cause the ratio error and the phase shift.
- Be careful to install Split-core CT without any pollutions on the core surfaces. The pollutions such as moisture, dust and rusty can be caused the error. After removing the pollutions, recommended to use WD-40 or CRC5-56 on the core surfaces.
- Check whether the secondary leads is connected correctly or not. If the connection is not correctly, the secondary output could be lower than the expected one.



Remarks for the Customized Products

- Please provide the technical requirements for a technical evaluation.
- The color of housing is changeable upon the customer's requirements.
- The leads can be mounted on the terminals by J&D.
- A protective tailor-made housing is available.

Tighten screws on the hole to mount bracket and install current transformer

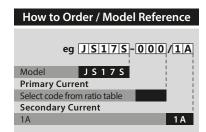
SPLIT-CORE CURRENT TRANSFORMER (STATE STA

JS series of split-core current transformer offers 1A AC at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JS series to a meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.



Applications	Features	Benefits	Notice
Power meter	PC housing, output-terminal, secure locking	Small-size, light-weight	Core contact surface is waterproofed, however if it
Switchgear	hinge, one-touch structure make easy to	Simple Installation	gets rusty, you could reuse after removing rusts with
Distributed	install to the existent equipments such as a	Over-Voltage protection	spraying WD-40 or CRC5-56 on the rusted side.
measurement systems	power distribution boards.	circuit is installed.	Do not use any other chemicals except WD-40 or
General Sets	Isolated plastic case recognized according		CRC5-56 on housing or any parts.
Control panels	to UL94-V0		Additionally, CTs are deliverable with customized
	UL / EN 61010-1 certified		output lead cable length.

Specification	
Accuracy	Class 0.5\$ / 1.0 / 3.0
Output Terminals	2 X M3-Screw, with Terminals cover
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & IEC61010-1
Operating Temperature Range	-20°C to 55°C
Relative Humidity	0-85% non-condensing
Test Voltage	3kV for 1 minute
Frequency Range	50/60Hz
Protection Level	Bipolar 6.5Vp
Insulation Category	CAT II or CAT III 600VAC



Cu	Current Transformer Ratios			
Primary	Metering Burden(VA)			
Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
60			0.2	060
75			0.5	075
100			0.5	100
125			1.0	125
150			1.0	150
200			1.0	200
			1A Seco	ndary

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

How to Order / Model Reference		
e	g JS245-000/1A	
Model	J S 2 4 S	
Primary Current		
Select code from ratio table		
Secondary Current		
1A	1 A	

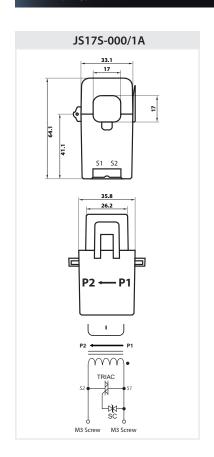
Current Transformer Ratios				
Primary	Metering Burden(VA)			
Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
100			1.0	100
125			1.0	125
150			1.0	150
200			1.0	200
250		1.0		250
300		1.5		300
			1A Seco	ndary

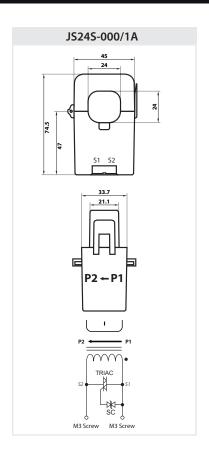
Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

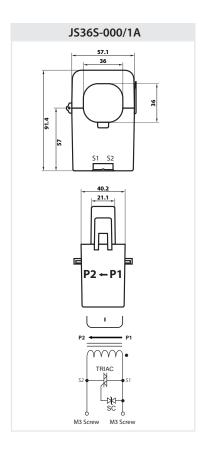
How to Order / Model Reference		
eg	JS36S-000/1A	
Model	J S 3 6 S	
Primary Current		
Select code from ratio table		
Secondary Current		
1A	1A	

Current Transformer Ratios				
Primary	Metering Burden(VA)			
Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
300		1.5		300
400	0.5			400
500	0.5			500
600	0.5			600
			1A Seco	ndary

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In



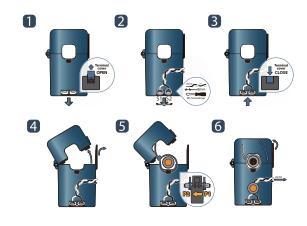




SPLIT-CORE CURRENT TRANSFORMER (\$\frac{1}{2}\text{Mis} \text{ \$\frac{1}{2}\text{Mis}} \text{Mis} \text{Mis} \text{Mis} \text{Mis} \text{Mis} \text{Mis} \t

JS series of split-core current transformer offers 1A AC at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JS series to a meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.

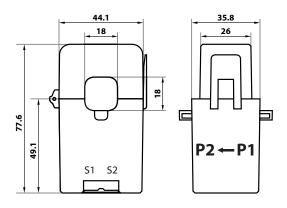


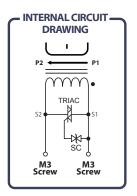


Applications	Features	Benefits	Notice
Power meter	PC housing, output-terminal, secure locking	Small-size, light-weight	Core contact surface is waterproofed, however if it gets
Switchgear	hinge, one-touch structure make easy to	Simple Installation	rusty, you could reuse after removing rusts with
Distributed measurement systems	install to the existent equipments such as a power distribution boards.	Over-Voltage protection circuit is installed.	spraying WD-40 or CRC5-56 on the rusted side Do not use any other chemicals except WD-40 or
General Sets	Isolated plastic case recognized according		CRC5-56 on housing or any other parts
Control panels	to UL94-V0		Customizing output lead wire
	UL / EN 61010-1 certified		

Specification	
Accuracy	Class 1.0 / 3.0
Output Terminals	2 X M3-Screw, with Terminals cover
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & IEC61010-1
Operating Temperature Range	-20°C to 55°C
Relative Humidity	0-85% non-condensing
Latch/Unlatch	about 100 times
Test Voltage	3kV for 1minute
Frequency Range	50/60Hz
Protection Level	Bipolar 6.5Vp
Insulation Category	CAT II or CAT III 600VAC

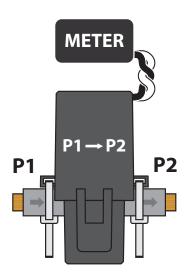
Current Transformer Versions / Dimensions





(unit:mm)

>>>> Installation





>>>> The Sample of customized product

JS18S + Optional Leadwire

- Standard length of lead wire is 2M, but the length may be altered according to the customer's needs.
- The lead wire connections are protected by a terminal cover which is secured with a sticker label.



How to Order / Model Reference eg JS185-000/0A Model JS18S Primary Current Select code from ratio table Secondary Current 1A 1A

Current Transformer Ratios

Primary	Mete	ring Burde	en(VA)	
Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
50			0.2	050
60			0.2	060
75			0.2	075
100		0.2		100
125		0.2		125
150		0.2		150
200		0.2		200
			1A Seco	ndary

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120% of In



- Split-core CT must be handled with care. A damage caused from the careless handling will not be covered by warranty.
- The product is designed to meet operating environments defined by the industrial standard IP20.
- Be careful to install the product with the correct polarity.
- Do not install the product if an application exceed the specifications of the product.
- Recommended to use the terminals specified by J&D.



Check Point for the Accurate Measurement

- Protection circuit built in inside of the product for user safety. An additional external protection circuit would be impacted on the feature.
- The product is designed for measuring sinusoidal 50/60Hz of primary current. Be aware that it is possible to occur the significant error if it is used to measure non-sinusoidal.
- Use Split-core CT with proper diameter to fit the conductor, otherwise it may cause the ratio error and the phase shift.
- Be careful to install Split-core CT without any pollutions on the core surfaces. The pollutions such as moisture, dust and rusty can be caused the error. After removing the pollutions, recommended to use WD-40 or CRC5-56 on the core surfaces.
- Check whether the secondary leads is connected correctly or not. If the connection is not correctly, the secondary output could be lower than the expected one.



Remarks for the Customized Products

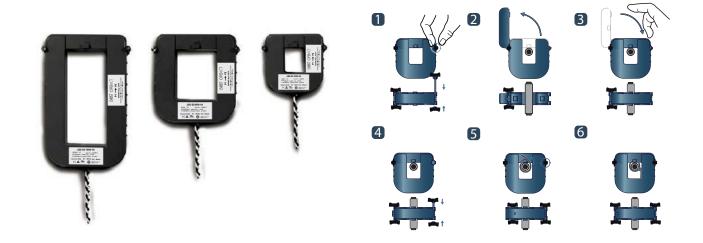
- Please provide the technical requirements for a technical evaluation.
- The color of housing is changeable upon the customer's requirements.
- The leads can be mounted on the terminals by J&D.
- $\boldsymbol{\cdot}$ A protective tailor-made housing is available.

SPLIT-CORE CURRENT TRANSFORMER (\$\frac{1}{2}\lambda_{14623}\right) JSC-XX-1A AC



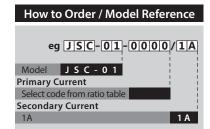


JSC series of split-core current transformer offers 1A at secondary from sensed primary current for metering application. It can be used for power meter, distribution system, control panels, switchgear and other equipment. It is designed to install to live power line without disconnection as split-core compact type. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.



Applications	Features	Benefits	Notice
Power meter	High quality comprehensive measurement	Faster installation	Core contact surface is waterproofed, however if it
Switchgear	Available in a wide range of transformer ratings	Cost effective	gets rusty, you could reuse after removing rusts with
Distributed	Accuracy up to Class 0.5S	Long product life	spraying WD-40 or CRC5-56 on the rusted side.
measurement systems			Do not use any other chemicals except WD-40 or
General Sets			CRC5-56 on housing or any parts.
Control panels			Customizing output lead wire

Specification	
Accuracy	Class 0.5S / 1.0 / 3.0
Leads	18AWG, 600VAC
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & IEC61010-1
Operating Temperature Range	-20°C to 60°C
Relative Humidity	0-90% non-condensing
Test Voltage	3kV for 1minute
Frequency Range	50/60Hz
Protection Level	Bipolar 6.5Vp
Insulation Category	CAT II or CAT III 600VAC



Current Transformer Ratios				
Primary	Metering Burden(VA)			
Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
100			0.5	0100
150			1.5	0150
200		0.5		0200
250		0.5		0250
300		0.5		0300
400	0.5			0400
			1A Seco	ndary

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

How to Order / Model Refer	rence
eg [JSC-02-0000	/1A
Model JSC-02	
Primary Current	1 1
Select code from ratio table	
Secondary Current	- !
1A	1 A

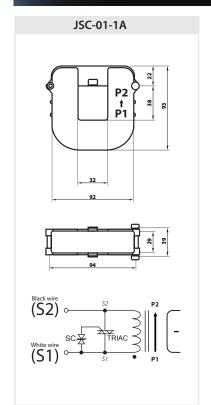
Current Transformer Ratios						
Primary	Metering Burden(VA)					
Current	cl. 0.5S	cl. 1	cl. 3	Code		
(A)	cl. 0.6	cl. 1.2	cl. 2.4			
400		1.0		0400		
500		2.5		0500		
600	1.0	5.0		0600		
750	1.0	5.0		0750		
800	1.0	5.0		0800		
1000	2.5	10.0		1000		
1A Secondary						
A course	Accuracy conforms to IEC61860-2 &					

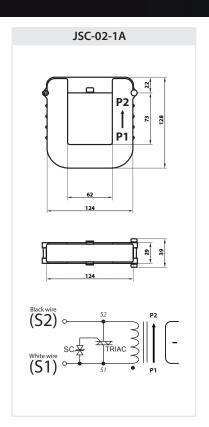
Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

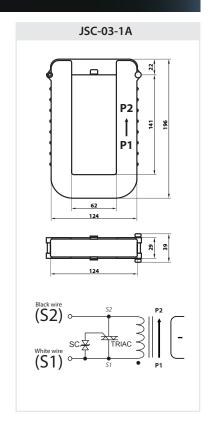
How to	Order / Model Reference				
eg	JSC-03-0000/1A				
Model	J S C - 0 3				
Primary C	urrent				
Select coo	de from ratio table				
Secondar	y Current				
1A	1 A				

Current Transformer Ratios				
Primary	Metering Burden(VA)			
Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
800	1.0	5.0		0800
1000	1.0	5.0		1000
1200	5.0	10.0		1200
1250	5.0	10.0		1250
1500	10.0	20.0		1500
1600	10.0	20.0		1600
2000	10.0	20.0		2000
2400	10.0	20.0		2400
			1A Seco	ndary

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In







SPLIT-CORE CURRENT TRANSFORMER (\$\frac{1}{23}\text{list} \frac{1}{234623} **JSXXS-XXX-5A AC**



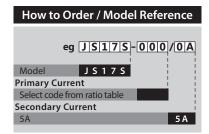


JS series of split-core current transformer offers 5A at secondary from sensed primary current for metering application. It can be used for power meter, distribution system, $control\ panels, switch gear\ and\ other\ equipment.\ It\ is\ designed\ to\ install\ to\ live\ power\ line\ without\ disconnection\ as\ split-core\ compact\ type.\ Also,\ over-voltage\ protection\ circuit$ is included to offer safe, fast and cost effective installation.



Applications	Features	Benefits	Notice
Power meter	PC housing, output-terminal, secure locking	Small-size, light-weight	Core contact surface is waterproofed, however if it
Switchgear	hinge, one-touch structure make easy to	Simple Installation	gets rusty, you could reuse after removing rusts with
Distributed measurement systems	install to the existent equipments such as a power distribution boards.	Over-Voltage protection circuit is installed.	spraying WD-40 or CRC5-56 on the rusted side. Do not use any other chemicals except WD-40 or
General Sets	Isolated plastic case recognized according		CRC5-56 on housing or any parts.
Control panels	to UL94-V0		Customizing output lead wire
	UL / EN 61010-1 certified		

Specification	
Accuracy	Class 0.5S / 1.0 / 3.0
Output Terminals	2 X M3-Screw, with Terminals cover
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & IEC61010-1
Operating Temperature Range	-20°C to 55°C
Relative Humidity	0-85% non-condensing
Test Voltage	3kV for 1minute
Frequency Range	50/60Hz
Protection Level	Bipolar 6.5Vp
Insulation Category	CAT II or CAT III 600VAC



Cu	Current Transformer Ratios				
Duimanu	Mete	ring Burde	n(VA)		
Primary Current	cl. 0.5S	cl. 1	cl. 3	Code	
(A)	cl. 0.6	cl. 1.2	cl. 2.4		
150			0.2	150	
	5A Secondary				

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

How to Order / Model Reference			
eg [J S 2 4 S]-[0]0[6	0/0A		
Model JS24S	i i		
Primary Current			
Select code from ratio table			
Secondary Current	_		
5A	5 A		

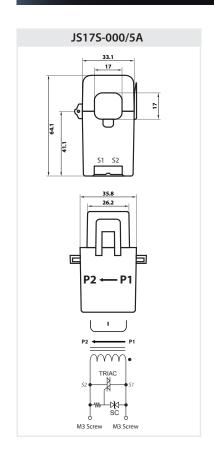
Duimanuu	Meter	Metering Burden(VA)			
Primary Current	cl. 0.5S	cl. 1	cl. 3	Code	
(A)	cl. 0.6	cl. 1.2	cl. 2.4		
100			1.5	100	
150			1.5	150	
200			1.5	200	
250			1.5	250	
300		0.5		300	
400		0.5		400	
5A Secondary					

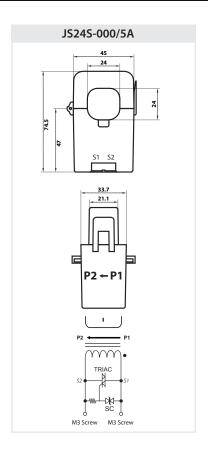
Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

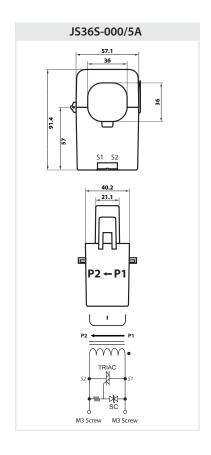
How to	Order / Model	Reference
	eg [JS 3 6 S]-	000/0A
Model	J S 3 6 S	
Primary Cu	rrent	
Select code	from ratio table	
Secondary	Current	
5A		5 A

Current Transformer Ratios					
Primary	Mete	Metering Burden(VA)			
Current	cl. 0.5S	cl. 1	cl. 3	Code	
(A)	cl. 0.6	cl. 1.2	cl. 2.4		
200			2.5	200	
250		0.5		250	
300		0.5		300	
400	0.5	2.5		400	
500	0.5	2.5		500	
600	0.5	5.0		600	
	5A Secondary				

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In







JS18S-XXX-5A AC

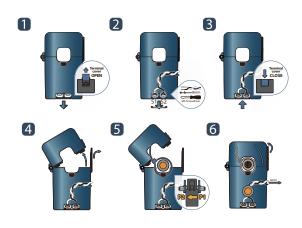






JS series of split-core current transformer offers 5A AC at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JS series to a meter for high ccuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.

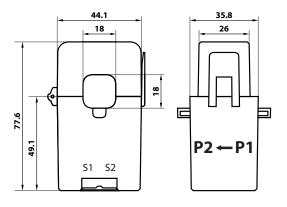


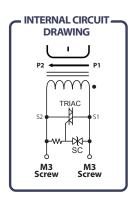


Applications	Features	Benefits	Notice
Power meter	PC housing, output-terminal, secure locking	Small-size, light-weight	Core contact surface is waterproofed, however if it gets
Switchgear	hinge, one-touch structure make easy to	Simple Installation	rusty, you could reuse after removing rusts with
Distributed	install to the existent equipments such as a	Over-Voltage protection	spraying WD-40 or CRC5-56 on the rusted side
measurement systems	power distribution boards.	circuit is installed.	Do not use any other chemicals except WD-40 or
General Sets	Isolated plastic case recognized according		CRC5-56 on housing or any other parts
Control panels	to UL94-V0		Customizing output lead wire
	UL / EN 61010-1 certified		

Specification	
Accuracy	Class 1.0 / 3.0
Output Terminals	2 X M3-Screw, with Terminals cover
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & IEC61010-1
Operating Temperature Range	-20°C to 55°C
Relative Humidity	0-85% non-condensing
Latch/Unlatch	about 100 times
Test Voltage	3kV for 1minute
Frequency Range	50/60Hz
Protection Level	Bipolar 6.5Vp
Insulation Category	CAT II or CAT III 600VAC

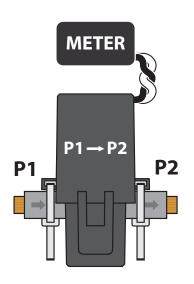
Current Transformer Versions / Dimensions





(unit:mm)

>>>> Installation





>>>> The Sample of customized product

JS18S + Optional Leadwire

- Standard length of lead wire is 2M, but the length may be altered according to the customer's needs.
- The lead wire connections are protected by a terminal cover which is secured with a sticker label.



How to Order / Model Reference eg JS18S-000/0A Model JS18S Primary Current Select code from ratio table Secondary Current 5A 5A

Current Transformer Ratios

Primary	Mete	ring Burde	n(VA)	
Current	cl. 0.5S	cl. 1	cl. 3	Code
(A)	cl. 0.6	cl. 1.2	cl. 2.4	
50			1.0	50
75			1.0	75
100			1.0	100
150		1.0		125
200		1.0		150
250		1.0		200
			5A Sec	ondary

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In



- Split-core CT must be handled with care. A damage caused from the careless handling will not be covered by warranty.
- The product is designed to meet operating environments defined by the industrial standard IP20.
- Be careful to install the product with the correct polarity.
- Do not install the product if an application exceed the specifications of the product.
- Recommended to use the terminals specified by J&D.



- Protection circuit built in inside of the product for user safety. An additional external protection circuit would be impacted on the feature.
- The product is designed for measuring sinusoidal 50/60Hz of primary current. Be aware that it is possible to occur the significant error if it is used to measure non-sinusoidal.
- Use Split-core CT with proper diameter to fit the conductor, otherwise it may cause the ratio error and the phase shift.
- Be careful to install Split-core CT without any pollutions on the core surfaces. The pollutions such as moisture, dust and rusty can be caused the error. After removing the pollutions, recommended to use WD-40 or CRC5-56 on the core surfaces.
- Check whether the secondary leads is connected correctly or not. If the connection is not correctly, the secondary output could be lower than the expected one.



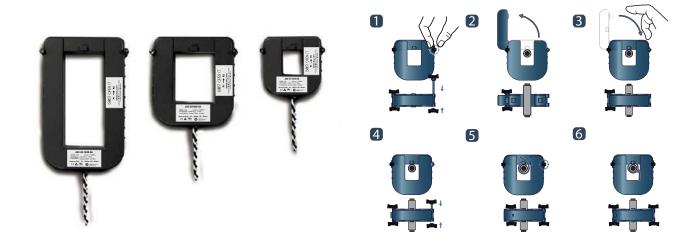
- Please provide the technical requirements for a technical evaluation.
- The color of housing is changeable upon the customer's requirements.
- $\boldsymbol{\cdot}$ The leads can be mounted on the terminals by J&D.
- $\boldsymbol{\cdot}$ A protective tailor-made housing is available.

JSC-XX-5A AC



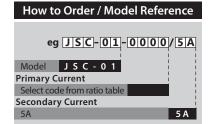


JSC series of split-core current transformer offers 5A at secondary from sensed primary current for metering application. It can be used for power meter, distribution system, control panels, switchgear and other equipment. It is designed to install to live power line without disconnection as split-core compact type. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.



Applications	Features	Benefits	Notice
Power meter	High quality comprehensive measurement	Faster installation	Core contact surface is waterproofed, however if it
Switchgear	Available in a wide range of transformer ratings	Cost effective	gets rusty, you could reuse after removing rusts with
Distributed measurement systems	Accuracy up to Class 0.5S	Long product life	spraying WD-40 or CRC5-56 on the rusted side. Do not use any other chemicals except WD-40 or
General Sets			CRC5-56 on housing or any parts.
Control panels			Customizing output lead wire

Specification	
Accuracy	Class 0.5S / 1.0 / 3.0
Leads	18AWG, 600VAC
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & IEC61010-1
Operating Temperature Range	-20°C to 60°C
Relative Humidity	0-90% non-condensing
Test Voltage	3kV for 1minute
Frequency Range	50/60Hz
Protection Level	Bipolar 6.5Vp
Insulation Category	CAT II or CAT III 600VAC



Current Transformer Ratios					
Duimanus	Mete				
Primary Current	cl. 0.5S	cl. 1	cl. 3	Code	
(A)	cl. 0.6	cl. 1.2	cl. 2.4		
100			0.5	0100	
150			1.5	0150	
200			1.5	0200	
250		0.5		0250	
300		0.5		0300	
400		0.5		0400	
5A Secondary					

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

How to Order / Model Reference					
eg [JSC]-[0]2 -[0]0]0	/5A				
Model JSC-02	- 1				
Primary Current	1				
Select code from ratio table	- 1				
Secondary Current	- 1				
5A	5 A				

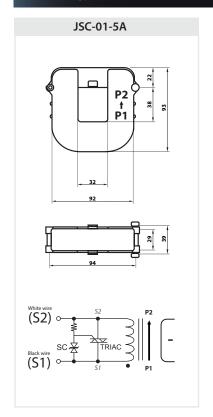
Current Transformer Ratios						
Duimanu	Mete	Metering Burden(VA)				
Primary Current	cl. 0.5S	cl. 1	cl. 3	Code		
(A)	cl. 0.6	cl. 1.2	cl. 2.4			
400		1.0		0400		
500		2.5		0500		
600	1.0	5.0		0600		
750	1.0	5.0		0750		
800	1.0	5.0		0800		
1000	2.5	10.0		1000		
5A Secondary						
A						

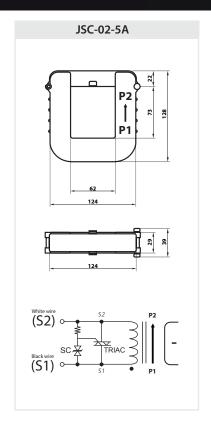
Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In

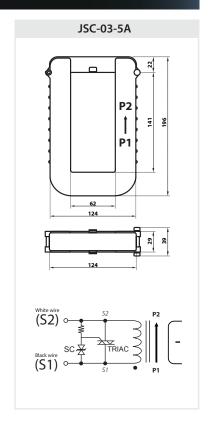
How to Order / Model Reference							
eg	eg [J S C]-[0]3 -[0]0 0]/[5 A]						
Model	J S C - 0 3	ŀ					
Primary C	urrent	ŀ					
Select coo	Select code from ratio table						
Secondar	y Current	ŀ					
5A	5 A						

Current Transformer Ratios								
Duimann	Mete	ring Burde	n(VA)					
Primary Current	cl. 0.5S	cl. 1 cl. 3		Code				
(A)	cl. 0.6	cl. 1.2	cl. 2.4					
800	1.0	5.0		0800				
1000	1.0	5.0		1000				
1200	5.0	0 10.0		1200				
1250	5.0	10.0		1250				
1500	10.0	20.0		1500				
1600	10.0	20.0		1600				
2000	10.0	20.0		2000				
2400	10.0	20.0		2400				
	5A Secondary							

Accuracy conforms to IEC61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1 to 120 % of In





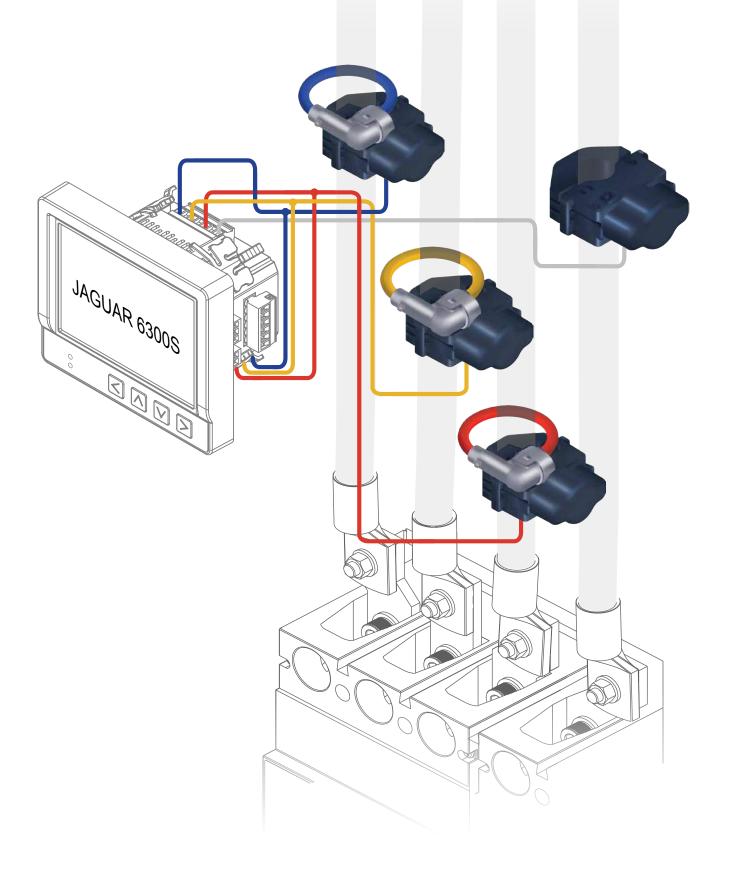


PT ACCESSORY Busbar type / Rail type / Wire type

Easy Voltage Tap for busbar			brand		voltage or rail mounting			ge Tap for wires
						4		
Technical specifi	cations		Technica	l specific	ations	Technic	al specifi	cations
Busbar connection Allen key size Busbar thickness Housing Material terminal Maximum temperature of the (Sum of the busbar temperat	Test voltage/spike 3kV/50Hz 6kV Max current 10A Isolation class E(Max. 120°C) Fuse type 5X25mm(with indicator) 10A SIBA DIN41565-2 Short circuit rating 70kA@400V/50Hz IP rating IP20 Ambient temperature -5+40°C Temperature rise busbar Max. 75K Busbar connection Via Allen key bolt M8 Allen key size Number 6 Busbar thickness Max. 15mm/Min. 4mm Housing Polyamide(PA6.6)		Location Operating tem Relative humic Protection deg Suitable for co conductors Application co Standard Umax Test voltage Imax Voltage drop Fuse Prim. connectio Sec. connectio	lity Irree pper bar nditions	Indoor use -10°C- +55°C 5% - 85%, non condensing Ip20, basic insulation IEC 60947-7-3:2009 400Vac 3kV/50Hz 6kV 1,2/50µs 2A <500mV AC 2A, 450V, F, 70kA, 5X25mm,ceramic (SIBA Part. no. 7008913.2) M6(6mm) or M8(8mm) 1.54mm² torque max. 2.0Nm	CE Directive Standard Standard Class Operating ter Relative humi Operating hei Protection de Pollution deg Measurement Insulation ma Wire diamete UAD6(n)-F Umax Test voltage Impulse volta Imax Voltage drop Fuse(UAD6-R. Sec. lead Usability Torque temperature Relative humi Weight Dimensions Material	dity ight gree ree t category terial r	Low voltage directive 2006/95/EC IEC 60998(clamp), IEC 60947(fuse) IEC 60947(fuse) IEC 60721-3-3:1996 3K3 +5°C - +55°C 5% - 85%, non condensing 02000m over NN IP20, basic insulation 2 CAT III PVC or XLPE 3 - 5mm(2,5 - 6mm²) Rigid wire(Solid, Stranded) Flexible wire 400Vac 3kV / 50Hz 6kV 1,2 / 50/J/S 2A <500mVac 2A, 450V, F, 70kA, 5X25mm, ceramic(SIBA Part.no. 7008913.2) 1mm flexible, 50cm, end-sleeve Multiple use, max. 24 times 1.5 - 2.0Nm -20°C - +70°C 5% - 85%, non condensing 28 gram diameter 23mm, height 59mm PA 6.6, UL94V2
Order specificati	Order specifications		Order specifications		Order specifications		ons	
Description Fused phase terminal Phase terminal Neutral terminal	Model UAK4Z UAK16 UAK16N	Connection 1,5 - 4mm ² 0 - 16mm ² 0 - 16mm ²	Type Zk4-M6 Zk4-M8	Article n 500030 500031	umber	Art. nr. 500072R 500073R 500072F 500073F 500074R 500074F	UAD6-R, UAD6n-R UAD6-F, UAD6n-F UAD6 set	fused for 2.5-6mm ² th, not fused for 2.5-6mm ² fused for 2.5-6mm ² fused for 2.5-6mm ² th, not fused for 2.5-6mm ² th, 3xUAD6-R + 1xUAD6nR th, 3xUAD6-R + 1xUAD6nF



PQ ~ RoCoil® combined PQ ~ VT®



JAGUAR 6300S MEMO



JAGUAR 6300S **MEMO**



