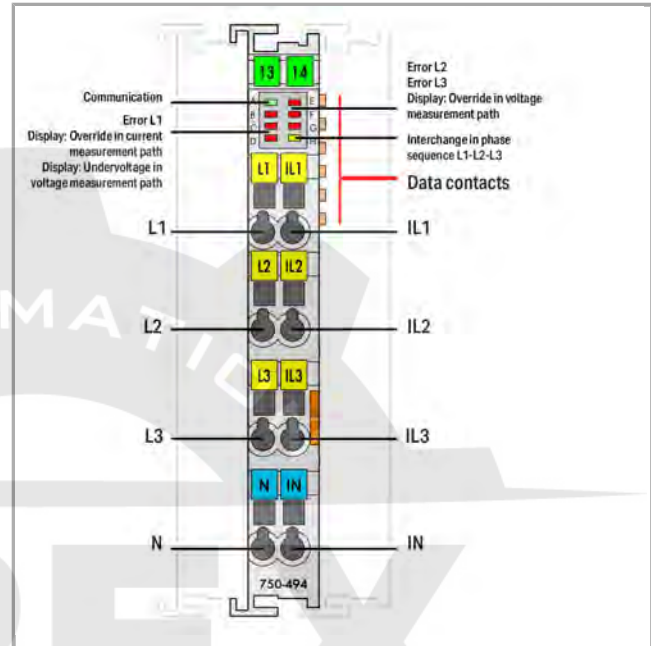
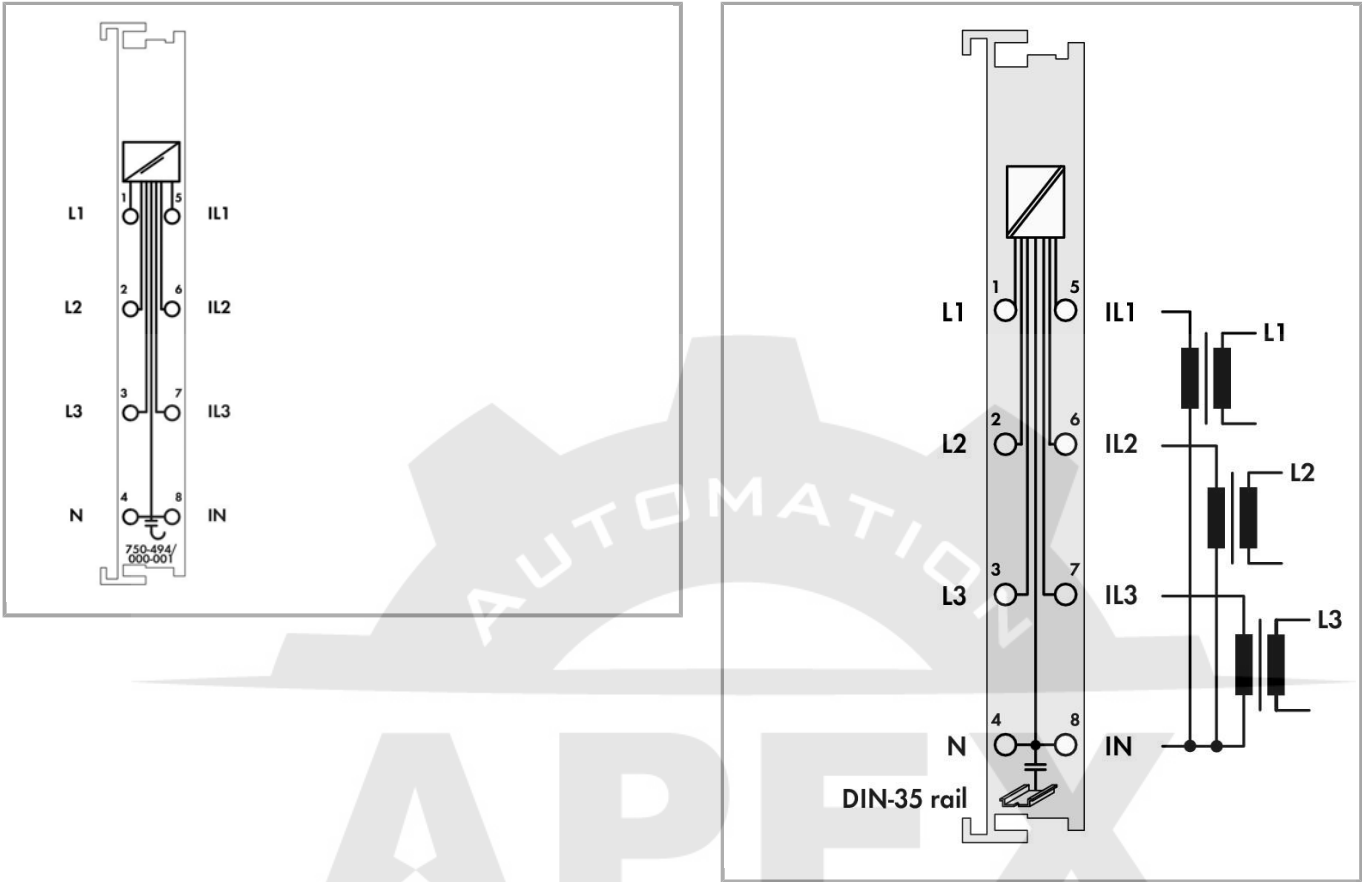




RoHS
Compliant

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Item description

The 750-494 3-Phase Power Measurement Module measures electrical data in a three-phase supply network. The voltage is measured via network connection to L1, L2, L3 and N. The current of the three phases is fed to IL1, IL2, IL3 and IN via current transformers. The 750-494 Module transmits metrics (e.g., reactive/apparent/effective power, energy consumption, power factor, phase angle, frequency, over-/undervoltage) directly into the process image, without requiring high computing power from the controller. Both comprehensive metrics and harmonic analysis up to the 41st harmonic permit an extensive network analysis via the fieldbus.

Metrics allow the operator to optimize the supply to a drive or machine, protecting the system from damage and failure. The 4-quadrant display indicates the type of load (inductive, capacitive) and whether it is an energy consumer or producer.

Data

Technical Data

Number of measurement inputs	6 (3 voltage measurement inputs, 3 current measurement inputs)
Type of signal	Power measurement
Signal form	any (taking the maximum frequency into account)
Resolution [bit]	24 Bit
Bit width	2 x 128-bit data; 2 x 64-bit control/status
Input resistance voltage path (typ.)	1072 kΩ
Input resistance current path typ.	5 mΩ
Bezug für Messfehler	AC Strom/Spannung



Messfehler, Bezugstemperatur	25 °C
Messfehler, Abweichung max. vom Messbereichsendwert	0.5 %
Measuring current (max.)	5 A
Measuring cycle time	Adjustable for arithmetic mean value, Min_Max_Values
Frequency range, power supply frequency	45 ... 65 Hz
Frequency range, harmonics analysis	0 ... 3300 Hz
Operating frequency	15.9 kHz
Rated voltage	$V_{LN} = 277 \text{ V AC/DC}$; $V_{LL} = 480 \text{ VAC}$
Measured values	Line-to-line voltage, power output, energy, power factors, mains frequency, harmonic analysis (up to the 41st harmonic), THD
Messkomponenten	Evaluating
Measuring procedure	True RMS measurement
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	100 mA
System and sensor supply voltage	)
Isolation	4 kV System/Feld
Rated surge voltage	4 kV

Connection data

Connection technology: In-/Outputs	8 x CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch

Geometrical Data

Width	12 mm / 0.472 inch
Height	67.8 mm / 2.669 inch
Height from upper-edge of DIN-35 rail	60.6 mm / 2.386 inch
Depth	100 mm / 3.937 inch

Mechanical data

Type of mounting	DIN-35 rail
------------------	-------------

Material Data

Housing material	Polycarbonate, polyamide 6.6
Weight	48.695 g
Conformity marking	1

Environmental Requirements

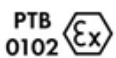
Surrounding air (operating) temperature	-20 ... 60 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20
Degree of pollution (5)	2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
Relative humidity	Short-term condensation per Class 3K6/IEC EN 60721-3-3 and E DIN 40046-721-3, taking a temperature range of -20 ... +60 °C into consideration (except wind-driven precipitation, water and ice formation)
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

Product Group	15 (Remote I/O)
Country of origin	DE
GTIN	4050821836247
Customs Tariff No.	85389099990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TÜV 07 ATEX 554086 X en.
	TUEV Nord TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 09.0001 X
	UL	ANSI/ISA 12.12.01	E198726



Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)

Sec.1

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Compatible products

system box

	Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip	850-804
	Item no.: 850-804/000-001 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	850-804
	Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	850-805
	Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	850-814

**Item no.: 850-815/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate

/002-000

850-815

**Item no.: 850-816/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate

/002-000

850-816

**Item no.: 850-817/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate

/002-000

850-817

**Item no.: 850-825**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20

850-825

**Item no.: 850-826**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

850-826

**Item no.: 850-826/002-000**

IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

/002-000

850-826

**Item no.: 850-827**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

850-827

**Item no.: 850-827/002-000**

IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

/002-000

850-827

**Item no.: 850-828**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

850-828

**Item no.: 850-828/002-000**

IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

/002-000

850-828

**Item no.: 850-834**

IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

850-834

**Item no.: 850-835**

IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

850-835

**Item no.: 850-836**

IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

850-836

General accessories**Item no.: 2007-8873**

Compact terminal block; for current and voltage transformers

2007-8873

**Item no.: 2007-8875**

Compact terminal block; for current transformer circuit

2007-8875

**Item no.: 855-8001**Power tap; with fuse; 2,5 mm² (12 AWG) - 6 mm² (10 AWG); Phase

855-8001



Item no.: 855-8002
Power tap; without fuse; 2,5 mm² (12 AWG) - 6 mm² (10 AWG); N-conductor

855-8002



Item no.: 855-8003
Power tap; with fuse; 10 mm² (8 AWG) - 16 mm² (6 AWG); Phase

855-8003



Item no.: 855-8004
Power tap; without fuse; 10 mm² (8 AWG) - 16 mm² (6 AWG); N-conductor

855-8004

shield connection

Item no.: 790-108
Shield clamping saddle; 11 mm wide; diameter of compatible conductor

790-108



Item no.: 790-116
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm

790-116



Item no.: 790-124
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm

790-124



Item no.: 790-140
Shield clamping saddle; diameter of compatible conductor

790-140



Item no.: 790-208
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

790-208



Item no.: 790-216
Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm

790-216



Item no.: 790-220
Shield clamping saddle; 30 mm wide; 6 ... 20 mm

790-220

Carrier rail

Item no.: 210-112
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm

210-112



Item no.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715

210-113



Item no.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715

210-114



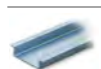
Item no.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm

210-115



Item no.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

210-118



Item no.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715

210-196



Item no.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

210-197



Item no.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

210-198



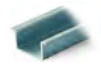
Item no.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715

210-504

**Item no.: 210-505**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; galvanized; according to EN 60715

210-505

**Item no.: 210-506**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; galvanized; similar to EN 60715

210-506

**Item no.: 210-508**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; galvanized; similar to EN 60715

210-508

Marking accessories**Item no.: 2009-145**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

**Item no.: 2009-145/000-002**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-002

2009-145

**Item no.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-005

2009-145

**Item no.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-006

2009-145

**Item no.: 2009-145/000-007**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-007

2009-145

**Item no.: 2009-145/000-012**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-012

2009-145

**Item no.: 2009-145/000-023**

Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-023

2009-145

**Item no.: 2009-145/000-024**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-024

2009-145

**Item no.: 248-501**

Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card

248-501

**Item no.: 248-501/000-002**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-002

248-501

**Item no.: 248-501/000-005**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-005

248-501

**Item no.: 248-501/000-006**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-006

248-501

**Item no.: 248-501/000-007**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-007

248-501

**Item no.: 248-501/000-012**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-012

248-501

**Item no.: 248-501/000-017**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-017

248-501

**Item no.: 248-501/000-023**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-023

248-501

**Item no.: 248-501/000-024**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-024

248-501

**Item no.: 750-103**

Group marker carrier

750-103

**Item no.: 750-107**

Group marker carrier

750-107

current transformer**Item no.: 855-1005/2500-1001**

Plug-in current transformer; Primary rated current: 2500 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1

/2500-1001

855-1005

**Item no.: 855-305/050-103**

Plug-in current transformer; Primary rated current: 50 A; Secondary rated current: 5 A; Rated power: 1.25 VA; Accuracy class: 3

/050-103

855-305

**Item no.: 855-305/060-101**

Plug-in current transformer; Primary rated current: 60 A; Secondary rated current: 5 A; Rated power: 1.25 VA; Accuracy class: 1

/060-101

855-305

**Item no.: 855-305/075-201**

Plug-in current transformer; Primary rated current: 75 A; Secondary rated current: 5 A; Rated power: 2.5 VA; Accuracy class: 1

/075-201

855-305

**Item no.: 855-305/100-201**

Plug-in current transformer; Primary rated current: 100 A; Secondary rated current: 5 A; Rated power: 2.5 VA; Accuracy class: 1

/100-201

855-305

**Item no.: 855-305/150-501**

Plug-in current transformer; Primary rated current: 150 A; Secondary rated current: 5 A; Rated power: 5 VA; Accuracy class: 1

/150-501

855-305

**Item no.: 855-305/200-501**

Plug-in current transformer; Primary rated current: 200 A; Secondary rated current: 5 A; Rated power: 5 VA; Accuracy class: 1

/200-501

855-305

**Item no.: 855-305/250-501**

Plug-in current transformer; Primary rated current: 250 A; Secondary rated current: 5 A; Rated power: 5 VA; Accuracy class: 1

/250-501

855-305

**Item no.: 855-305/300-501**

Plug-in current transformer; Primary rated current 300 A; Secondary rated current: 5 A; Rated power: 5

/300-501

855-305

VA; Accuracy class: 1

	Item no.: 855-305/400-1001 Plug-in current transformer; Primary rated current: 400 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1	/ 400-1001	855-305
	Item no.: 855-305/600-1001 Plug-in current transformer; Primary rated current: 600 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1	/ 600-1001	855-305
	Item no.: 855-4005/150-101 Split-core current transformer; Primary rated current: 150 A; Secondary rated current: 5 A; Rated power: 1 VA; Accuracy class: 1; Cable length: 0.5 m	/ 150-101	855-4005
	Item no.: 855-405/250-501 Plug-in current transformer; Primary rated current: 250 A; Secondary rated current: 5 A; Rated power: 5 VA; Accuracy class: 1	/ 250-501	855-405
	Item no.: 855-405/400-501 Plug-in current transformer; Primary rated current: 400 A; Secondary rated current: 5 A; Rated power: 5 VA; Accuracy class: 1	/ 400-501	855-405
	Item no.: 855-405/750-501 Plug-in current transformer; Primary rated current: 750 A; Secondary rated current: 5 A; Rated power: 5 VA; Accuracy class: 1	/ 750-501	855-405
	Item no.: 855-4105/250-101 Split-core current transformer; Primary rated current: 250 A; Secondary rated current: 5 A; Rated power: 1 VA; Accuracy class: 1; Cable length: 0.5 m	/ 250-101	855-4105
	Item no.: 855-4105/400-101 Split-core current transformer; Primary rated current: 400 A; Secondary rated current: 5 A; Rated power: 1 VA; Accuracy class: 1; Cable length: 0.5 m	/ 400-101	855-4105
	Item no.: 855-5005/1000-000 Split-core current transformer; Primary rated current: 1000 A; Secondary rated current: 5 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 3 m	/ 1000-000	855-5005
	Item no.: 855-5005/400-001 Split-core current transformer; Primary rated current: 400 A; Secondary rated current: 5 A; Rated power: 0.5 VA; Accuracy class: 1; Cable length: 3 m	/ 400-001	855-5005
	Item no.: 855-5005/600-000 Split-core current transformer; Primary rated current: 600 A; Secondary rated current: 5 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 3 m	/ 600-000	855-5005
	Item no.: 855-505/1000-1001 Plug-in current transformer; Primary rated current: 1000 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1	/ 1000-1001	855-505
	Item no.: 855-505/400-1001 Plug-in current transformer; Primary rated current: 400 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1	/ 400-1001	855-505
	Item no.: 855-505/600-1001 Plug-in current transformer; Primary rated current: 600 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1	/ 600-1001	855-505
	Item no.: 855-505/800-1001		

	Plug-in current transformer; Primary rated current: 800 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1	855-505
		/ 800-1000
	Item no.: 855-5105/1000-000 Split-core current transformer; Primary rated current: 1000 A; Secondary rated current: 5 A; Rated power: 0.5 VA; Accuracy class: 0.5; Cable length: 3 m	855-5105
		/ 1000-5000
	Item no.: 855-605/1500-501 Plug-in current transformer; Primary rated current: 1500 A; Secondary rated current: 5 A; Rated power: 5 VA; Accuracy class: 1	855-605
		/ 1500-5000
	Item no.: 855-805/2000-1001 Plug-in current transformer; Primary rated current: 2000 A; Secondary rated current: 5 A; Rated power: 10 VA; Accuracy class: 1	855-805
		/ 2000-10000

Downloads

Documentation

Bid Text

750-494/025-001	Oct 2, 2014	doc	Download
IO-Klemmen		32.8 kB	

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf	Download
		265.8 kB	

System Description

Overview on WAGO-I/O-SYSTEM 750 approvals	pdf	Download
	780.2 kB	
750/753 Series I/O-System – General Product Information	pdf	Download
	1.7 MB	

CAD/CAE - Smart Data

CAD data

3D Download 750-494/025-001	URL	Download
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Product family

750/753 Series I/O-System
[Learn more about the product family.](#)

[Show all products from the family](#)



Subject to changes.
