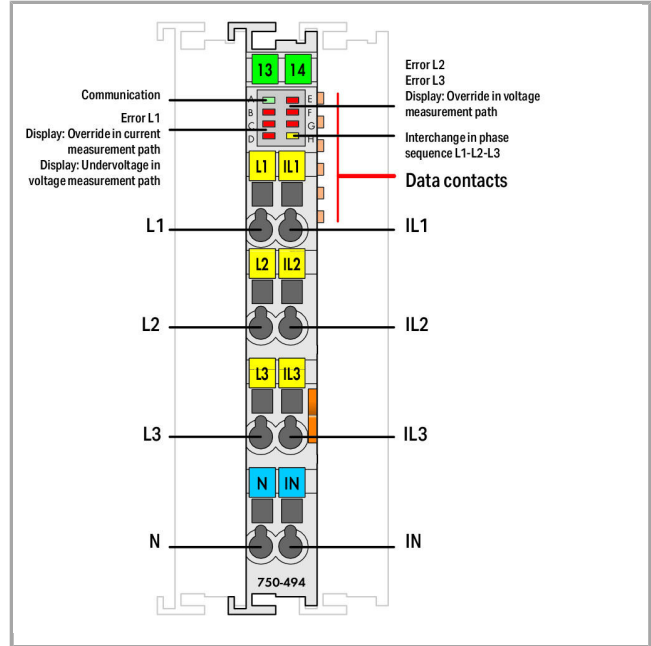
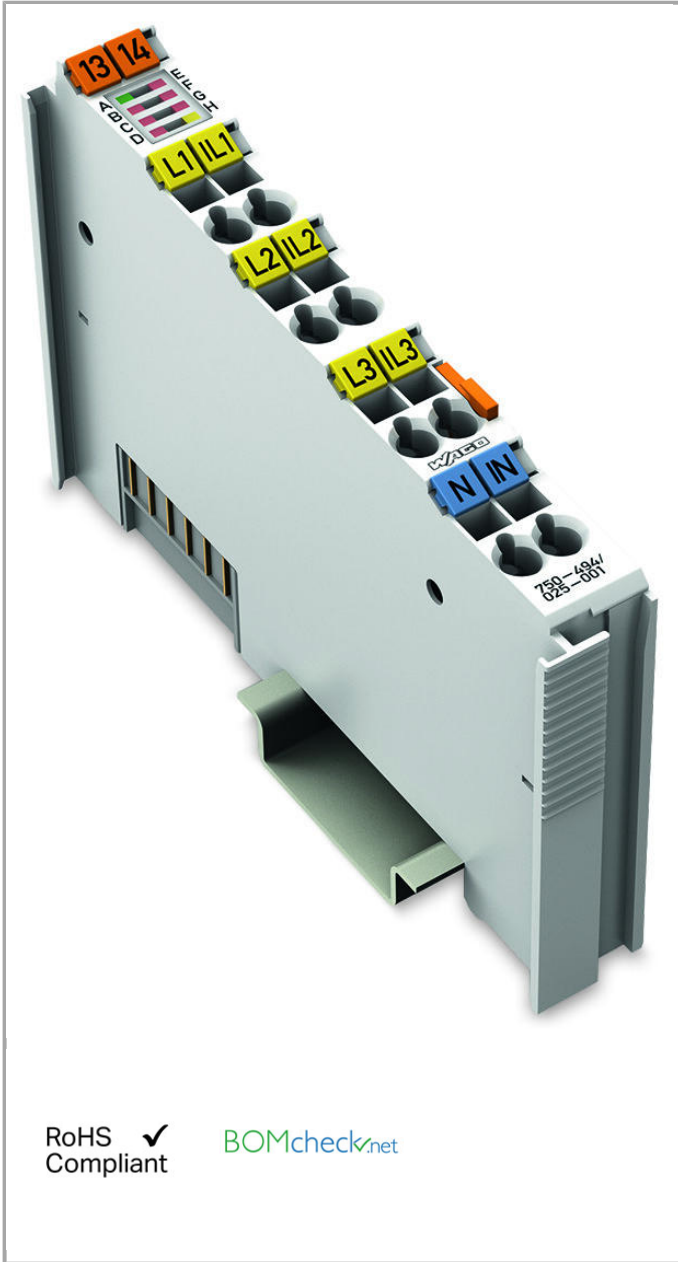


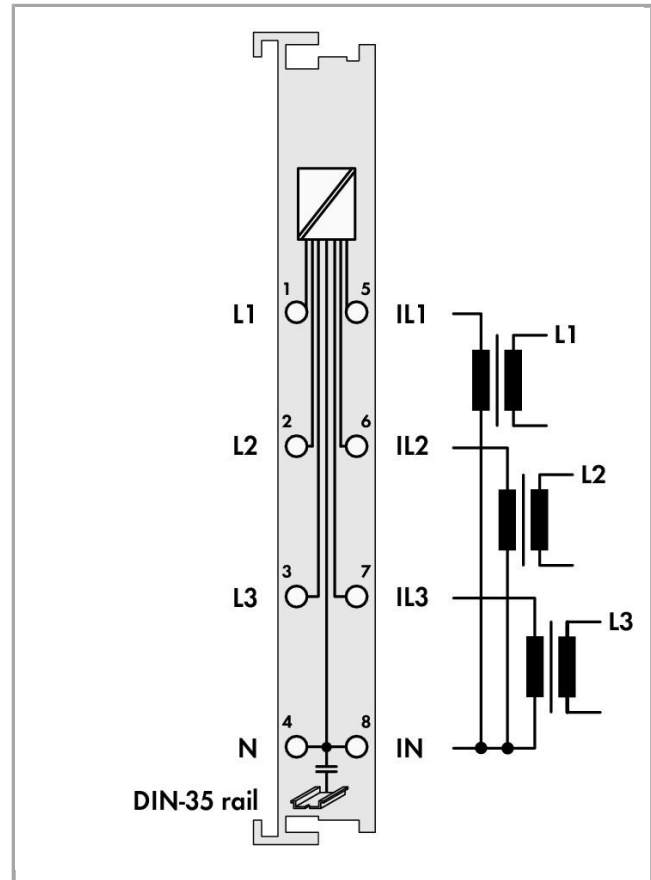
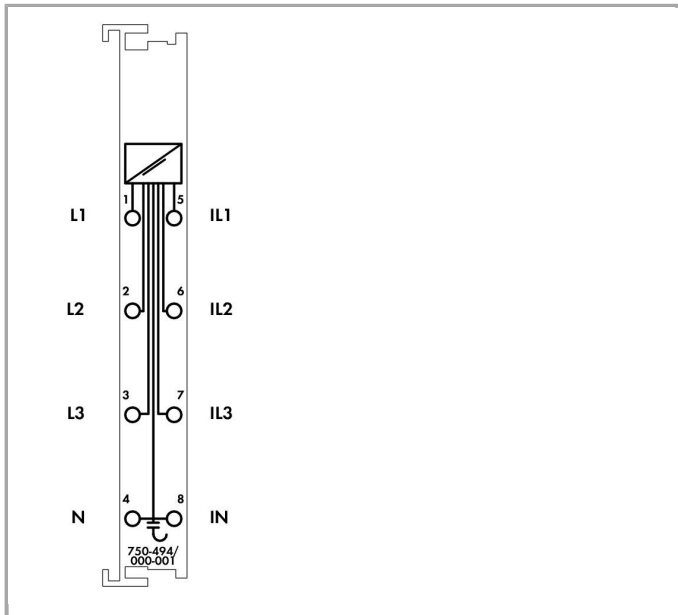
Data sheet | Item number: 750-494/025-001
 3-phase power measurement module; 480 VAC, 5 A; EXT



750-494/025-001



RoHS Compliant [BOMcheck.net](https://www.bomcheck.net)



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 k Ω
Input resistance current path typ.	5 m Ω
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 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 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

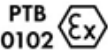

Surrounding air (operating) temperature	-20 ... 60 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20
Degree of pollution (5)	2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
Relative humidity	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 /000-001
	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 /002-000















	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	850-815
		7002-000
	Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	850-816
		7002-000
	Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	850-817
		7002-000
	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	850-826
		7002-000
	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	850-827
		7002-000
	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	850-828
		7002-000
	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 mm ² (12 AWG) - 6 mm ² (10 AWG); Phase	855-8001

	Item no.: 855-8002 Power tap; without fuse; 2,5 mm ² (12 AWG) - 6 mm ² (10 AWG); N-conductor	855-8002
	Item no.: 855-8003 Power tap; with fuse; 10 mm ² (8 AWG) - 16 mm ² (6 AWG); Phase	855-8003
	Item no.: 855-8004 Power tap; without fuse; 10 mm ² (8 AWG) - 16 mm ² (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; unslotted; 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; unslotted; 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; slotted; 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	2009-145 /000-002
	Item no.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-005
	Item no.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-006
	Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-007
	Item no.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-012
	Item no.: 2009-145/000-023 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-023
	Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-024
	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	248-501 /000-002
	Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	248-501 /000-005
	Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	248-501 /000-006
	Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	248-501 /000-007

	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 VA; Accuracy class: 1	/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
	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
	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
	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

Downloads

Documentation

Bid Text

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

Additional Information

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

System Description

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

CAD/CAE - Smart Data

CAD data

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

Product family

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

[Show all products from the family](#)



Subject to changes.
