

OMNIMATE Power - series BL/SL 7.62HP BLZ 7.62HP/06/180 SN OR BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image



Similar to illustration

Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range.

High-performance female header for applications up to 12 kVA:

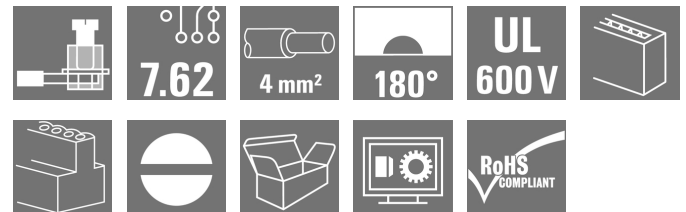
- 29 A with 400 V (IEC)
- 20 A at 600 V (UL)
- 0.08 - 4 mm² / AWG 28 - 12

Assisting in device approval:

- Meets the requirements of 600 V according to UL 508 / UL 840.
- When plugged, meets the increased requirements on touch safety as per IEC 68100-5-1

The slimming diet for multiple-stage device series:

Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!



General ordering data

Type	BLZ 7.62HP/06/180 SN OR BX
Order No.	1980520000
Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 6, Clamping yoke connection, Clamping range, max.: 4 mm ² , Box
GTIN (EAN)	4032248675579
Qty.	50 pc(s).
Product data	IEC: 630 V / 29 A / 0.2 - 4 mm ² UL: 600 V / 20 A / AWG 20 - AWG 12
Packaging	Box

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Technical data
Dimensions and weights

Height	18.3 mm	Height (inches)	0.72 inch
Depth	23.3 mm	Depth (inches)	0.917 inch
Net weight	12.92 g		

System Parameters

Product family	OMNIMATE Power - series BL/SL 7.62HP	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Number of poles	6
L1 in mm	38.1 mm	L1 in inches	1.5 inch
Number of rows	1	Pin series quantity	1
Rated cross-section	2.5 mm ²	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Touch-safe protection acc. to DIN VDE 0470	IP 20	Volume resistance	5.00 mΩ
Can be coded	Yes	Stripping length	7 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping screw	M 2.5	Screwdriver blade	0.6 x 3.5
Screwdriver blade standard	DIN 5264	Plugging force/pole, max.	9.5 N
Pulling force/pole, max.	8.5 N		

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Layer structure of plug contact	4-8 μm Sn hot-dip tinned	Storage temperature, min.	-25 °C
Storage temperature, max.	50 °C	Max. relative humidity during storage	70 %
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	100 °C

Conductors suitable for connection

Clamping range, min.	0.08 mm ²
Clamping range, max.	4 mm ²
Wire connection cross section AWG, min.	AWG 28
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	4 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	4 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.4 mm

Creation date May 3, 2020 3:07:33 AM CEST

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.25 mm ²
wire end ferrule	Stripping length	nominal	10 mm
		Recommended wire-end ferrule	H0,25/12 HBL
Cross-section for conductor connection	Type	fine-wired	
		nominal	0.34 mm ²
wire end ferrule	Stripping length	nominal	10 mm
		Recommended wire-end ferrule	H0,34/12 TK
Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm ²
wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0,5/6
Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm ²
wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0,75/6
Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm ²
wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H1,0/6
Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm ²
wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H1,5/7
Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm ²
wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H2,5/7
Reference text	The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated voltage.		
Max. clamping range	4 mm ²		

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	29 A
Rated current, max. number of poles (Tu=20°C)	26.5 A	Rated current, min. number of poles (Tu=40°C)	25 A
Rated current, max. number of poles (Tu=40°C)	23 A	Rated voltage for surge voltage class / pollution degree II/2	630 V
Rated voltage for surge voltage class / pollution degree III/2	500 V	Rated voltage for surge voltage class / pollution degree III/3	400 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 180 A
Clearance, min.	9.8 mm	Creepage distance, min.	11.3 mm

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Technical data**Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1121690

Rated voltage (Use group B / CSA)	600 V
Rated voltage (Use group D / CSA)	600 V
Rated current (Use group C / CSA)	20 A
Wire cross-section, AWG, min.	AWG 20
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / CSA)	600 V
Rated current (Use group B / CSA)	20 A
Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, max.	AWG 12

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V
Rated current (Use group C / UL 1059)	20 A
Wire cross-section, AWG, min.	AWG 20
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059)	600 V
Rated current (Use group B / UL 1059)	20 A
Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, max.	AWG 12

Packing

Packaging	Box	VPE length	82 mm
VPE width	115 mm	VPE height	165 mm

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09
eClass 10.0	27-44-03-09	UNSPSC	30-21-18-10

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Technical data
Notes

Notes	<ul style="list-style-type: none"> • Additional colours on request • Gold-plated contact surfaces on request • Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule without plastic collar to DIN 46228/1 • Wire end ferrule with plastic collar to DIN 46228/4 • P on drawing = pitch • Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.
IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

Approvals

Approvals



ROHS Conform

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN_WSCAD
Engineering Data	STEP
White paper power electronics connected correctly	Download Whitepaper
User Documentation	QR-Code product handling video
White paper UL 600 V	Download Whitepaper

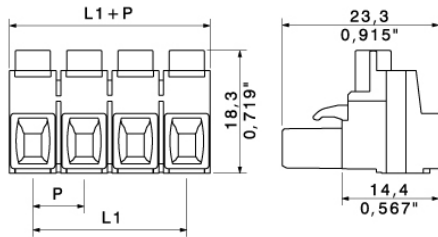
Data sheet

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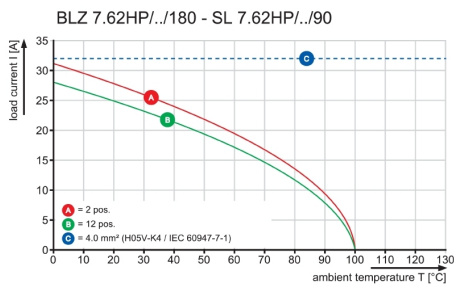
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Drawings

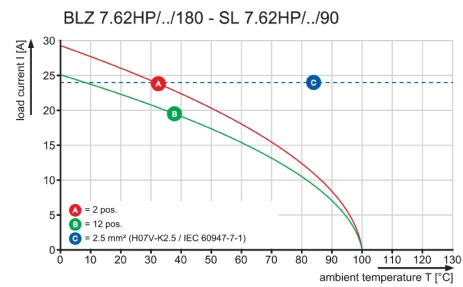
Dimensional drawing



Graph



Graph



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Mating connector (fully pluggable)
SL 7.62HP/270G

Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range up to 12 kVA

- 29 A at 400 V (IEC)
- 20 A at 300 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm² / AWG 28 - 12

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1

The slimming diet for multiple-stage device series:
Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 270° outlet angle

General ordering data

Type	SL 7.62HP/06/270G 3.2SN ...	Version	Product data	Packaging
Order No.	1472280000	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 6, 270°, Solder pin length (l): 3.2 mm, black, Box	IEC: 630 V / 27.5 A UL: 300 V / 20 A	Box
GTIN (EAN)	4050118317442			
Qty.	50 pc(s).			
Type	SL 7.62HP/06/270G 3.2SN ...	Version	Product data	Packaging
Order No.	1472530000	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 6, 270°, Solder pin length (l): 3.2 mm, orange, Box	IEC: 630 V / 27.5 A UL: 300 V / 20 A	Box
GTIN (EAN)	4050118317664			
Qty.	50 pc(s).			

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Fax: +49 5231 14-292083
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Mating connector (fully pluggable)
SL 7.62HP/90G

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100% cost-effectiveness:**

The compact, efficient solution for UL-600V applications in the lower performance range up to 12 kVA

- 29 A at 400 V (IEC)
- 20 A at 300 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm² / AWG 28 - 12

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1

The slimming diet for multiple-stage device series:
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Male header, 90° outlet angle

General ordering data

Type	SL 7.62HP/06/90G 3.2SN ...	Version	Product data	Packaging
Order No.	1059490000	PCB plug-in connector, male header, closed side, THT solder	IEC: 630 V / 29 A	Box
GTIN (EAN)	4032248807314	connection, 7.62 mm, Number of poles: 6, 90°, Solder pin length (l):	UL: 300 V / 20 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		
Type	SL 7.62HP/06/90G 3.2SN ...	Version	Product data	Packaging
Order No.	1980410000	PCB plug-in connector, male header, closed side, THT solder	IEC: 630 V / 29 A	Box
GTIN (EAN)	4032248675463	connection, 7.62 mm, Number of poles: 6, 90°, Solder pin length (l):	UL: 300 V / 20 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

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Mating connector (fully pluggable)
SL 7.62HP/180G

Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range.

High-performance male header for applications up to 12 kVA:

- 29 A at 400 V (IEC)
- 20 A at 600 V (UL)
- Single compartment mating profile

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1 when combined with female header BLZ 7.62 HP

The slimming diet for multiple-stage device series:

Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 180° outlet direction, without flange

General ordering data

Type	SL 7.62HP/06/180G 3.2SN ...	Version	Product data	Packaging
Order No.	1048990000	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 6, 180°, Solder pin length (l): UL: 300 V / 20 A	IEC: 630 V / 29 A	Box
GTIN (EAN)	4032248786961			
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		
Type	SL 7.62HP/06/180G 3.2SN ...	Version	Product data	Packaging
Order No.	1048910000	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 6, 180°, Solder pin length (l): UL: 300 V / 20 A	IEC: 630 V / 29 A	Box
GTIN (EAN)	4032248786886			
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

OMNIMATE Power - series BL/SL 7.62HP BLZ 7.62HP/06/180 SN OR BX

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Accessories

Coding elements



**Only connects what is supposed to be connected:
the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

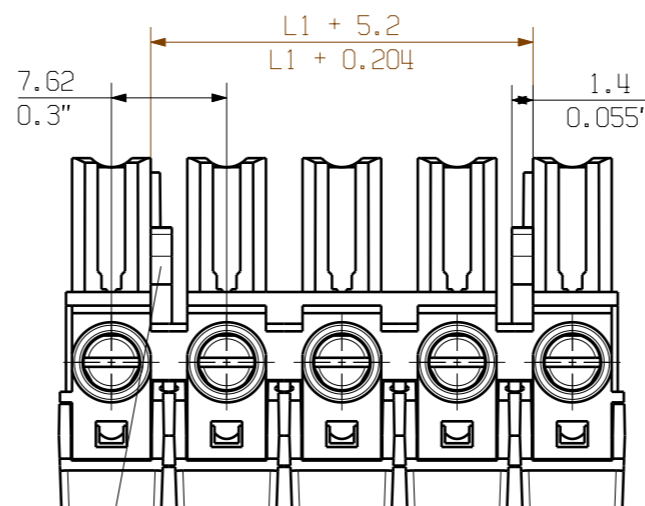
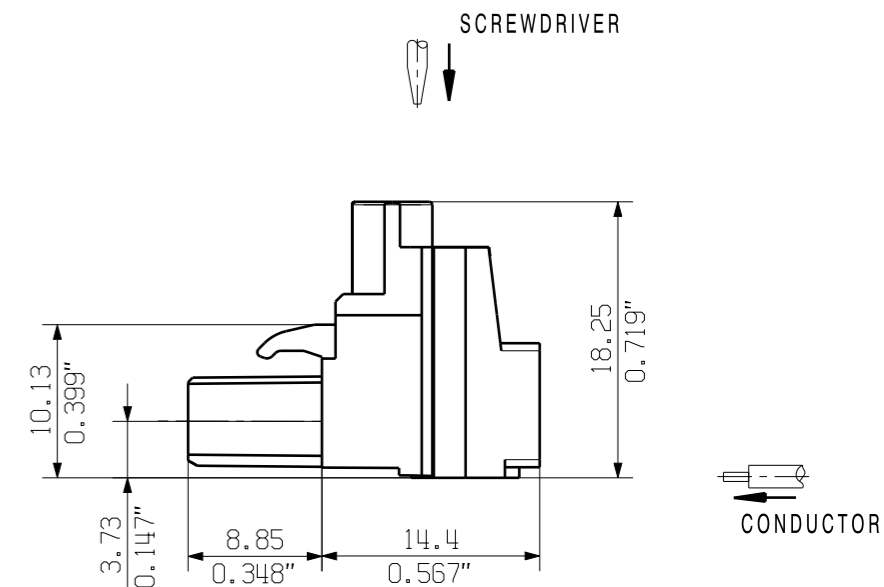
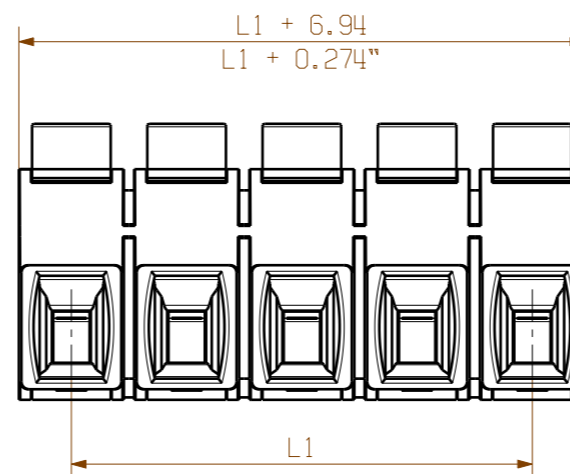
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

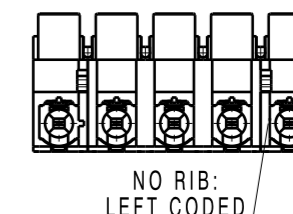
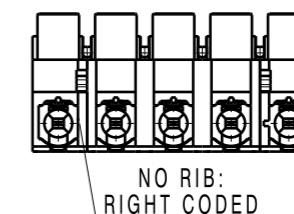
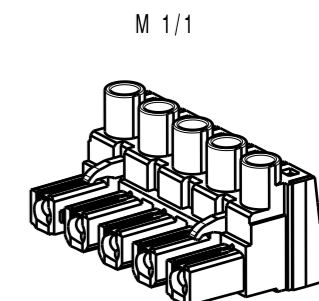
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			
Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			

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BEDRUCKUNGSVORLAGE SIEHE ZNG: 43764
PRINT DRAWING NO.: 43764

ORDER NUMBERS SEE SHEET: S 43761

CODING SCHEME SEE SHEET: K 43761

REPRESENTED: BLZ7.62HP/5/180

6	38,10	1,500
5	30,48	1,200
4	22,86	0,900
3	15,24	0,600
2	7,62	0,300
n	L1 [mm]	L1 [Inch]

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

General tolerance: DIN ISO 2768-mK		94081/5 02.05.17 HELIS_MA 00		Cat.no.: .									
		Modification											
		<table border="1"> <tr> <th>Date</th> <th>Name</th> </tr> <tr> <td>Drawn 24.04.2017</td> <td>HELIS_MA</td> </tr> <tr> <td>Responsible</td> <td>KRUG_M</td> </tr> <tr> <td>Checked 11.05.2017</td> <td>HELIS_MA</td> </tr> <tr> <td>Approved</td> <td>LANG_T</td> </tr> </table>		Date	Name	Drawn 24.04.2017	HELIS_MA	Responsible	KRUG_M	Checked 11.05.2017	HELIS_MA	Approved	LANG_T
Date	Name												
Drawn 24.04.2017	HELIS_MA												
Responsible	KRUG_M												
Checked 11.05.2017	HELIS_MA												
Approved	LANG_T												
Scale: 2:1		BLZ 7.62HP/./180 BUCHSENLEISTE SOCKET BLOCK											
Supersedes: .						Product file: BLZ/SL 7.62 HP		7375					