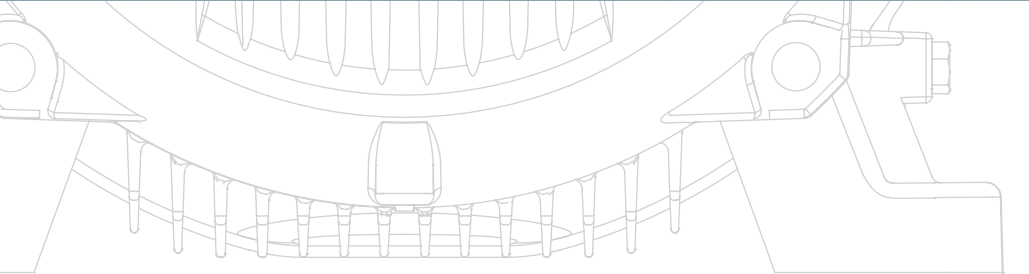
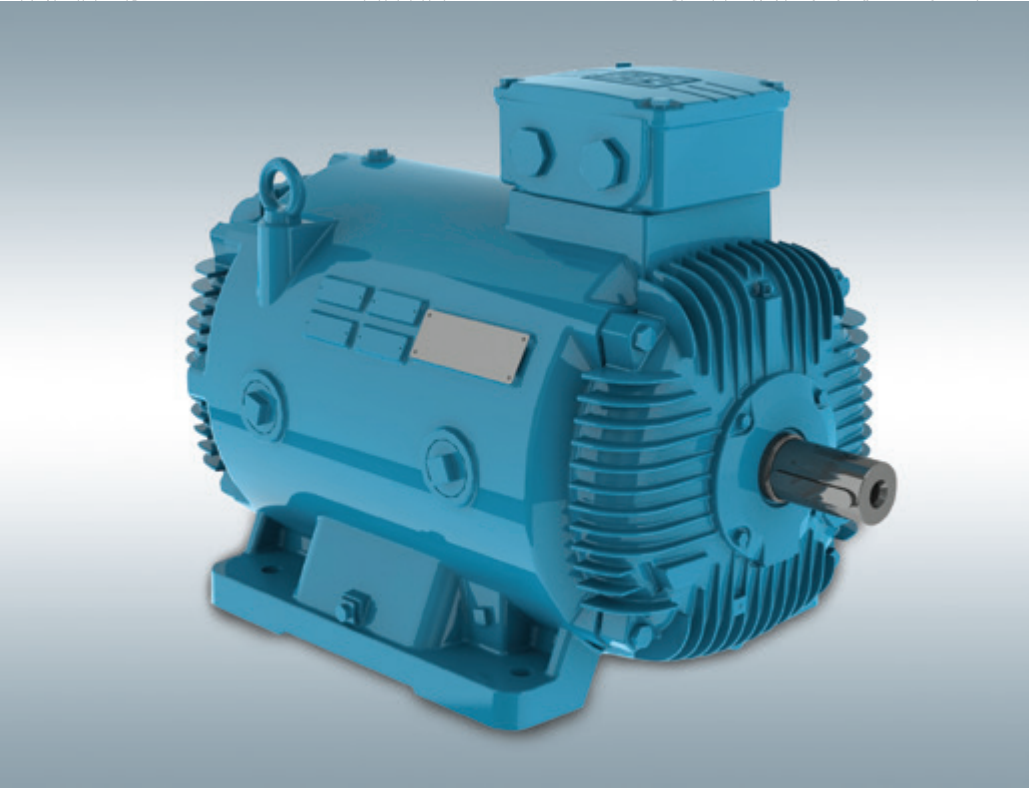



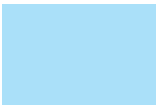






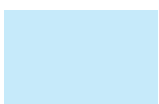







Water Cooled

- Low noise level
- Low maintenance
- Low operating cost





Water Cooled Motors

WEG Water Cooled motors were developed to match the increasing market demands for compact design motors with low noise level and high output power ratio per frame size. These motors meet the IE2 efficiency levels defined by IEC 60034-30:2008 Standard, thus ensuring lower energy consumption and consequently reducing their operating costs.

Construction characteristics

The motor cooling is ensured by a jacket where the water flows uniformly between the stator core and motor frame. This cooling system is a very efficient method of transferring heat away from the motor, even at low speeds, which is especially important on applications with variable frequency drives (VFD) when constant motor torque is required.

These advantages make the motors suitable for a wide range of applications, mainly in environments with reduced space and air flow where low noise level is required. Typical applications also include spaces with quite hard maintenance access.

Customized solutions with
water cooling technology.



These motor frames are made of FC-200 cast iron, without requiring additional seals between the components which reduces inspection interventions. Other parts of the Water Cooled motors are fully interchangeable with the W21 and W22 lines which ensures major flexibility and reliability to the whole set.



Features and benefits

Features	Benefits
Efficiency levels in accordance with EC 60034-30:2008 Standard	Lower energy consumption and reduced operating cost
Water cooled	Ensures more heat dissipation and allows higher output per frame size
External fan not required	Reduced noise level
Smaller dimensions	Space optimization allowing reduction of the customer machine
Solid cast iron frame	Additional seals not required
Windings and bearings RTD (PT100)	Allows continuous monitoring of the motor operating temperature
Customization	Product customized to meet specific applications
Operation with VSD without forced ventilation	Auxiliary circuits not required, which reduces the total motor length

Technical features

Standard

- Output: 18.5 to 450 kW
- Number of poles: 2 to 8 poles
- Frame sizes: 180L to 355M/L
- Voltage: up to 660 V
- Frequency: 50 or 60 Hz
- Service factor: 1.00 or 1.15
- Degree of Protection: IP55
- Insulation class: F or H
- Mounting: B3T
- Thermal protection: Windings and bearings RTD (PT100)
- Frame: Cast iron
- Cooling system: IC71W
- Nameplate: Stainless steel
- Grounding terminals on frame and main terminal box

Optional

Water cooled motors are usually adapted to specific applications.

Contact WEG and customize your project.

Cooling System

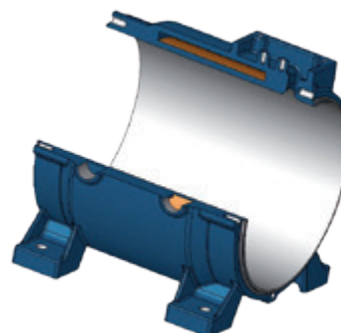
The WEG developed technology for the Water Cooled motor line does not require the use of additional seals between the product components. The water flows through a closed jacket between stator core and the cast iron frame, which eliminates risks of leakage.

Water Flow

Table below shows the water flow rates (estimated) for water cooled frames and the water temperature rise after flowing through the motor:

Frame	Flow (liters/minute)	Water temperature rise (°C)
180L	20	5
200M and 200L	20	5
225S/M	25	5
250S/M	25	5
280S/M	30	5
315S/M	30	6
355M/L	35	6

Note: Frame sizes 200LL and 315L/J are available on request.



Representation of the frame cut showing the cooling system

Applications

WEG Water Cooled motors can be used for a wide variety of applications and are mainly recommended where space and noise level reduction is required. They are also recommended for different applications including:

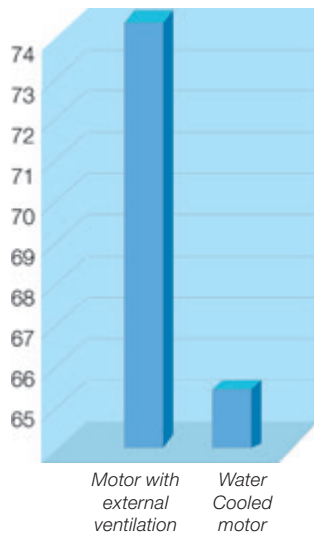
- Compressors
- Injection machines
- Water treatment plants
- Textile industries
- Mining equipment
- Power Train



Low noise level

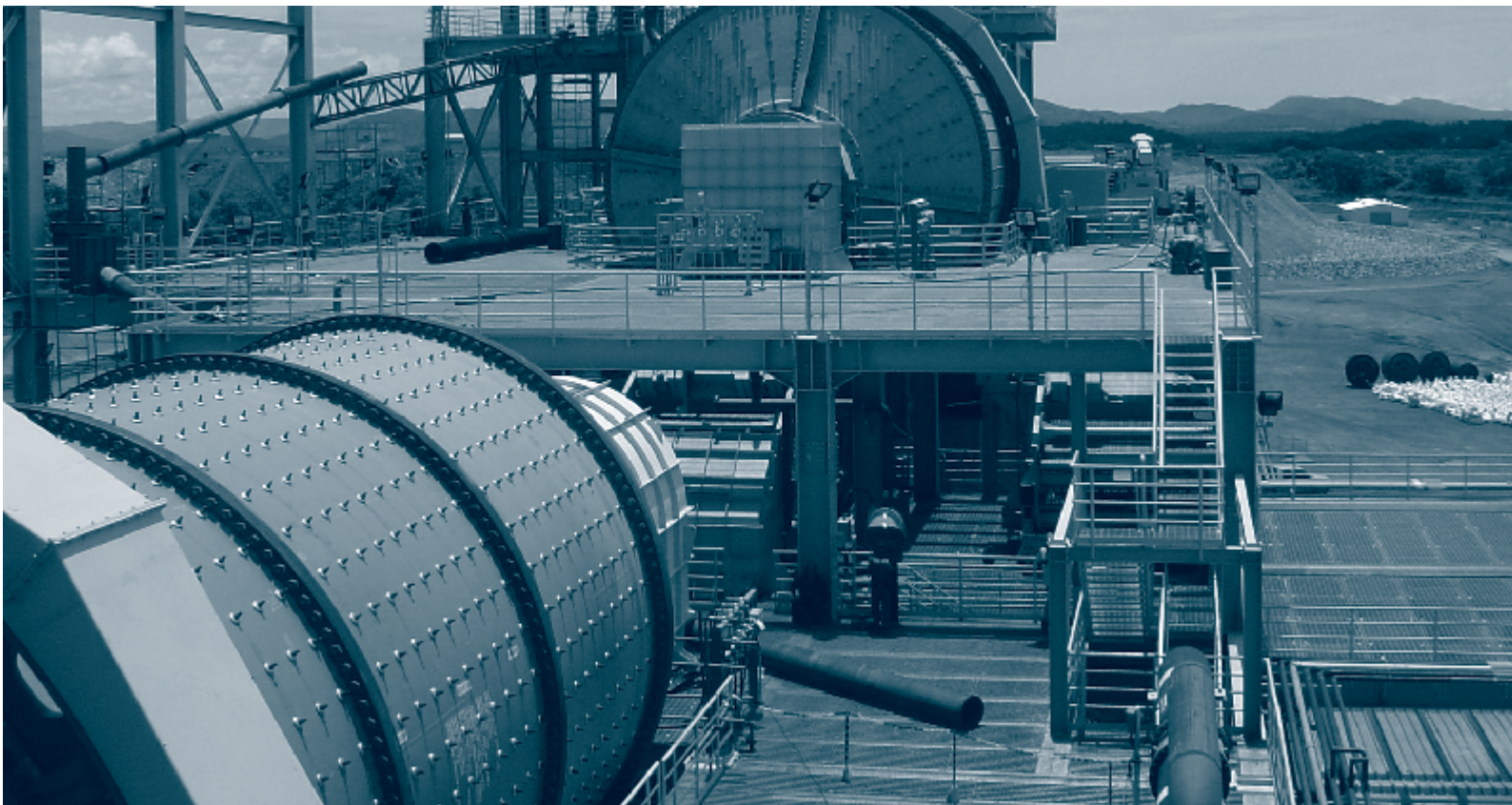
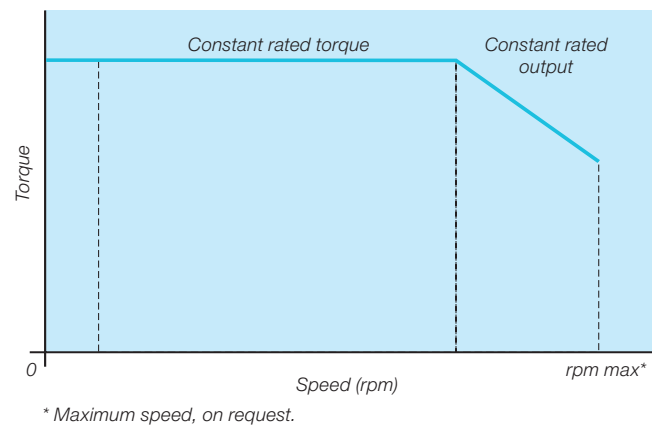
The fan is one of the main acoustic noise sources in rotating electric machines. As the Water Cooled motor does not require the application of a cooling fan, this reduces the noise level and ensures a noisless operation with high performance, low mechanical losses and consequent efficiency increase.

Average sound pressure level dB (A) Motor 30 kW - 3000 rpm - frame 200



Wide speed range at constant torque

Water Cooled motors do not have cooling efficiency reduction as result of the speed decrease of self-ventilated motors when driven by VSD. The continuous water flow through the frame jacket allows the motor to provide constant torque from zero up to rated frequency since the heat dissipation does not depend on the motor speed (see chart below).



Output per frame

Due to the improved heat dissipation of the Water Cooled motors, they can provide higher outputs in equivalent frame sizes when compared to self-ventilated motors. Therefore, Water Cooled motors ensure optimization of the installation space for their compact design which reduces the end size of the equipment where they will be installed.

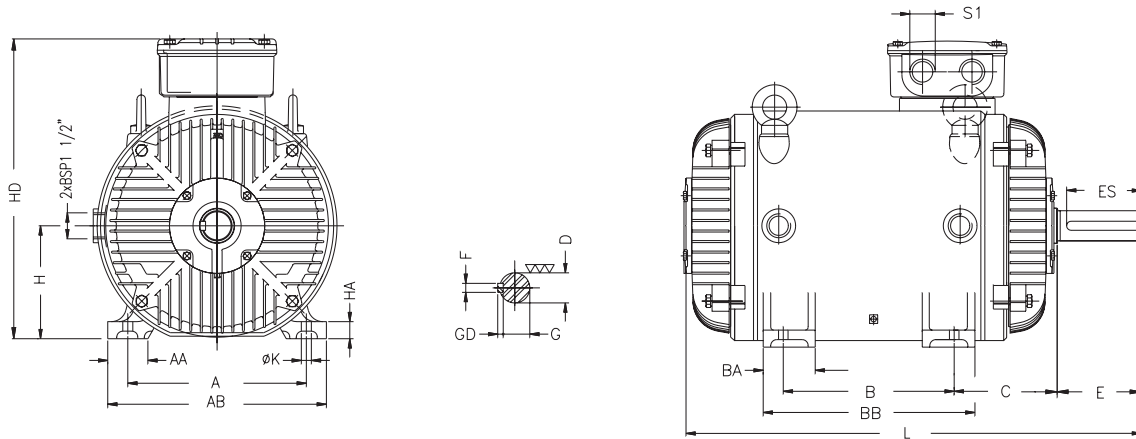
The table below shows the guiding ratio for the outputs per frame for 50 Hz motors based on a maximum water input temperature of 40 °C.

Output - kW				
Frame	2 poles	4 poles	6 poles	8 poles
180L	22	22	18.5	15
200M	30	30	22	18.5
200L	37	37	30	22
	45			
225S/M	55	45	37	30
		55		
250S/M	75	75	45	37
	90	90	55	45
	-	-	75	-
280S/M	110	110	90	55
	132	132	110	75
	-	-	-	90
315S/M	150	150	132	110
	185	185	150	-
	200	200	-	-
355M/L	220	220	185	132
	260	260	200	150
	-	300	220	185
	-	330	260	200
	-	370	300	220
	-	-	330	-

Note:
Performance data, on request.



Mechanical data



Frame	A	AA	AB	B	BA	BB	C	D	E	ES	F	G	GD	H	HA	HD	K	L	S1	
180L	279	80	350	279	75	332	121	48k6	110	80	14	42.5	9	180	28	450	14,5	624	2xM40x1.5	
200M	318	82	267	85	133		55m6	16			49	10	200	30	494	18.5	638	676	718*	2xM50x1.5
200L			305		370	10	225	34	593	748										
225S/M	356	80	436	286	105	391	149	55m6*	110*	100*	16*	49*	10*	225	34	593	18.5	718*	748	2xM50x1.5
			311	60m6			140	125	18	53	11									
250S/M	406	100	506	349	138	449	168	60m6*	140*	125*	18*	53*	11*	250	42	618	24	824	2xM63x1.5	
			368	65m6*			140*	125*	18*	58*	11*	280	743							
280S/M	457		557	419	142	510	190	65m6*	140*	125*	18*	58*	11*	315	52	807	28	1027*		
			406	152	558	216	80m6	170	160	22	71	14	1057							
315S/M	508	120	628	457	152	558	216	65m6*	140*	125*	18*	58*	11*	315	52	807	28	1027*	1057	2xM63x1.5
			457	80m6			170	160	22	71	14	1248*								
355M/L	610	140	816	560	200	760	254	65m6*	140*	125*	18*	58*	11*	355	50	1035	28	1248*	1318	2xM63x1.5
			630	100m6			210	200	28	90	16									

Notes:

- 1) Dimensions with * refer to 2 pole motors.
- 2) Water input and output on frame: 2 x BSP 1 1/2".



WEG Worldwide Operations

ARGENTINA

WEG EQUIPAMIENTOS
ELECTRICOS S.A.
(Headquarters San
Francisco-Cordoba)
Sgo. Pampiglione 4849
Parque Industrial San Francisco
2400 - San Francisco
Phone: +54 (3564) 421484
Fax: +54 (3564) 421459
info-ar@weg.net
www.weg.net/ar

AUSTRALIA

WEG AUSTRALIA PTY. LTD.
3 Dalmore Drive
Carribean Park Industrial Estate
Scoresby VIC 3179 - Melbourne
Phone: 61 (3) 9765 4600
Fax: 61 (3) 9753 2088
info-au@weg.net
www.weg.net/au

BELGIUM

WEG BENELUX S.A.
Rue de l'Industrie 30 D,
1400 Nivelles
Phone: + 32 (67) 88-8420
Fax: + 32 (67) 84-1748
info-be@weg.net
www.weg.net/be

CHILE

WEG CHILE S.A.
Los Canteros 8600
La Reina - Santiago
Phone: (56-2) 784 8900
Fax: (56-2) 784 8950
info-cl@weg.net
www.weg.net/cl

CHINA

WEG (NANTONG) ELECTRIC
MOTOR MANUFACTURING CO.,
LTD.
No. 128# - Xinkai South Road,
Nantong Economic &
Technical Development Zone,
Nantong, Jiangsu Province.
Phone: (86) 0513-85989333
Fax: (86) 0513-85922161
info-cn@weg.net
www.weg.net/cn

COLOMBIA

WEG COLOMBIA LTDA
Calle 46A N82 - 54
Portería II - Bodega 7 - San
Cayetano II - Bogotá
Phone: (57 1) 416 0166
Fax: (57 1) 416 2077
info-co@weg.net
www.weg.net/co

DENMARK

WEG SCANDINAVIA DENMARK
Sales Office of WEG
Scandinavia AB
Anelysparken 43B
True
8381 Tilst - Denmark
Phone: +45 86 24 22 00
Fax : +45 86 24 56 88
info-se@weg.net
www.weg.net/se

FRANCE

WEG FRANCE SAS
ZI de Chenes - Le Loup
13 Rue du Morellon - BP 738
38297 Saint Quentin Fallavier
Phone: +33 (0) 4 74 99 11 35
Fax: +33 (0) 4 74 99 11 44
info-fr@weg.net
www.weg.net/fr

GERMANY

WEG GERMANY GmbH
Industriegebiet Türnich 3
Geigerstraße 7
50169 Kerpen-Türnich
Phone: +49 (0)2237/9291-0
Fax: +49 (0)2237/9292-200
info-de@weg.net
www.weg.net/de

GHANA

ZEST ELECTRIC GHANA
LIMITED - WEG Group
15, Third Close Street Airport
Residential Area, Accra PMB CT
175, Cantonments
Phone: 233 30 27 664 90
Fax: 233 30 27 664 93
info@zestghana.com.gh
www.zestghana.com.gh

INDIA

WEG ELECTRIC (INDIA) PVT.
LTD.
#38, Ground Floor, 1st Main
Road, Lower Palace Orchards,
Bangalore - 560 003
Phone(s): +91-80-4128 2007
+91-80-4128 2006
Fax: +91-80-2336 7624
info-in@weg.net
www.weg.net/in

ITALY

WEG ITALIA S.R.L.
V.le Brianza 20 - 20092 - Cinisello
Balsamo - Milano
Phone: (39) 02 6129-3535
Fax: (39) 02 6601-3738
info-it@weg.net
www.weg.net/it

JAPAN

WEG ELECTRIC MOTORS
JAPAN CO., LTD.
Yokohama Sky Building 20F,
2-19-12 Takashima,
Nishi-ku, Yokohama City,
Kanagawa, Japan 220-001
Phone: (81) 45 440 6063
info-jp@weg.net
www.weg.net/jp

MEXICO

WEG MEXICO, S.A. DE C.V.
Carretera Jorobas-Tula Km. 3.5,
Manzana 5, Lote 1
Fraccionamiento Parque
Industrial - Huehuetoca,
Estado de México - C.P. 54680
Phone: + 52 (55) 5321 4275
Fax: + 52 (55) 5321 4262
info-mx@weg.net
www.weg.net/mx

NETHERLANDS

WEG NETHERLANDS
Sales Office of
WEG Benelux S.A.
Hanzepoort 23C
7575 DB Oldenzaal
Phone: +31 (0) 541-571080
Fax: +31 (0) 541-571090
info-nl@weg.net
www.weg.net/nl

PORTUGAL

WEG EURO - INDÚSTRIA
ELÉCTRICA, S.A.
Rua Eng. Frederico Ulrich
Apartado 6074
4476-908 - Maia
Phone: +351 229 477 705
Fax: +351 229 477 792
info-pt@weg.net
www.weg.net/pt

RUSSIA

WEG RUSSIA
Russia, 194292, St. Petersburg,
Prospekt Kultury 44, Office 419
Phone: +7(812)363-21-72
Fax: +7(812)363-21-73
info-ru@weg.net
www.weg.net/ru

SOUTH AFRICA

ZEST ELECTRIC MOTORS
(PTY) LTD. WEG Group
47 Galaxy Avenue, Linbro
Business Park - Gauteng Private
Bag X10011 - Sandton, 2146
Johannesburg
Phone: (27-11) 723-6000
Fax: (27-11) 723-6001
info@zest.co.za
www.zest.co.za

SPAIN

WEG IBERIA S.L.
Avenida de la Industria,25
28823 Coslada - Madrid
Phone: (34) 916 553 008
Fax : (34) 916 553 058
info-es@weg.net
www.weg.net/es

SINGAPORE

WEG SINGAPORE PTE LTD
159, Kampong Ampat,
#06-02A KA PLACE.
Singapore 368328.
Phone: +65 6858 9081
Fax: +65 6858 1081
info-sg@weg.net
www.weg.net/sg

SWEDEN

WEG SCANDINAVIA AB
Box 10196
Verkstadgatan 9
434 22 Kungsbacka
Phone: (46) 300 73400
Fax: (46) 300 70264
info-se@weg.net
www.weg.net/se

UK

WEG ELECTRIC
MOTORS (U.K.) LTD.
28/29 Walkers Road
Manorside Industrial Estate
North Moons Moat - Redditch
Worcestershire B98 9HE
Phone: 44 (0)1527 596-748
Fax: 44 (0)1527 591-133
info-uk@weg.net
www.weg.net/uk

UNITED ARAB EMIRATES

WEG MIDDLE EAST FZE
JAFZA - JEBEL ALI FREE ZONE
Tower 18, 19th Floor,
Office LB 18 1905
P.O. Box 262508 - Dubai
Phone: +971 (4) 8130800
Fax: +971 (4) 8130811
info-us@weg.net
www.weg.net/ae

USA

WEG ELECTRIC CORP.
6655 Sugarloaf Parkway,
Duluth, GA 30097
Phone: 1-678-249-2000
Fax: 1-770-338-1632
info-us@weg.net
www.weg.net/us

VENEZUELA

WEG INDUSTRIAS VENEZUELA C.A.
Avenida 138-A
Edificio Torre Banco Occidental de
Descuento, Piso 6 Oficina 6-12
Urbanizacion San Jose de Tarbes
Zona Postal 2001
Valencia, Edo. Carabobo
Phone(s): (58) 241 8210582
(58) 241 8210799
(58) 241 8211457
Fax: (58) 241 8210966
info-ve@weg.net
www.weg.net/ve



WEG Equipamentos Elétricos S.A.
International Division
Av. Prefeito Waldemar Grubba, 3000
89256-900 - Jaraguá do Sul - SC - Brazil
Phone: 55 (47) 3276-4002
Fax: 55 (47) 3276-4060
www.weg.net

