PRODUCT CATALOG

8″
High Efficiency System
High Efficiency Solar System

Franklin Electric
HIGH EFFICIENCY SYSTEM

franklinwater.eu

QUALITY

AVAILABILITY

SERVICE

INNOVATION

Quality in the Well

Technical changes without notice / Techn. Änderungen vorbehalten / Modifications techniques réservées sans préavis / 5930

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8" High Efficiency System

Franklin Electric is pleased to announce the range extension up to 150kW for its successful High Efficiency Submersible Borehole Systems (HES). The system consists of an 8" synchronous submersible NEMA motor with associated variable frequency drive and matching output filter.
Ever since their introduction, our 6" HES have proven their world-class efficiency in more than 400 applications to date, saving up to 20% of electrical energy when compared to standard asynchronous motor system
.

System Product advantages:

- One-stop shop - perfectly matched components guarantee first class performance/ efficiency
  - ⇨ *System payback < 2 years*
- Up to **8% improved motor efficiency** with excellent partial load behaviour*
  - ⇨ *SKU Reduction*
- Significantly lower motor heat rise
  - ⇨ *Increased lifetime*
- Higher power density
  - ⇨ *Lightweight*
- Easy set-up due to tailored pre-setting, user interface, own **Franklin Electric software** and Quick Installation Guide (QIG)
- Speed control
  - ⇨ *Optimum aggregate operation - pump matches system any time*
- Incorporated Soft start and protection features
  - ⇨ *Increased lifetime*
  - ⇨ *No additonal investment*
- Reduced amps
  - ⇨ *Smaller drop lead cross size*
- Power factor corrected input
  - ⇨ *No power compensation needed*
- Connectivity: built in Modbus, optional Profibus and Ethernet

* in comparison to current asynchronous technology

System Technical Specification:

- Rating: 75 / 100 / 150kW
- System Power Supply: Voltage 400V +/- 10%
  Frequency 50Hz +/- 6%

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Model Numbers

400V-50Hz High Efficiency System (Synchronous Motor, VFD & Filter)

P [kW]	For panel mount		For wall mount - IP54	
	dV/dt Filter	Sinus Filter	dV/dt Filter	Sinus Filter
75	308 014 001	308 014 101	308 014 201	308 014 301
100	308 016 001	308 016 101	308 016 201	308 016 301
150	308 017 001	308 017 101	308 017 201	308 017 301

Non-stock items
For lead length > 120m please consult Franklin Electric

System Options:

- Plug-in card 6x DI/DO - 308 170 201
- Plug-in card PT100 - 308 170 202
- Plug-in card Profibus - 308 170 203
- Plug-in card 1x AI & 2x AO 308 170 206
- Other voltages
- Sinus output filters in IP54 and IP00
- PT100 protection
- Motors in 316SS and 904L

Control modes and necessary sensor technologies

Process reference	Control reference	Flow meter	Pressure sensor	Level sensor	PT100 sensor & Drive slot card
Q - Flow	No (Optional)	mandatory			
	P	mandatory	mandatory		
	H	mandatory		mandatory	
P - pressure	No (Optional)	Yes*	mandatory		
	Q	mandatory	mandatory		
	H		mandatory	mandatory	
H - level	No (Optional)	Yes*		mandatory	
	Q	mandatory		mandatory	
	P		mandatory	mandatory	
Manual Mode	No				Yes*

*please consult Franklin Electric

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Performance Data 400V-50Hz

	P [kW]	Thrust F [kN]	n_N [min^{-1}]	I_N [A]	I_A / I_N* [A]	η [%]	cos φ [%]	T_N [Nm]	T_A / T_N* [Nm]
308 014 X01	45	45	3000	74	1	93,3	0,96	143	1
	55	45	3000	91	1	93,3	0,96	175	1
	67	45	3000	112	1	93	0,96	213	1
	75	45	3000	128	1	92,5	0,96	239	1
308 016 X01	75	45	3000	129	1	93,5	0,95	239	1
	83	45	3000	143	1	93,3	0,95	264	1
	93	45	3000	162	1	93	0,95	296	1
	100	45	3000	178	1	92,7	0,95	319	1
308 017 X01	100	45	3000	176	1	94,2	0,94	319	1
	110	45	3000	193	1	94,2	0,94	350	1
	130	45	3000	229	1	94	0,94	413	1
	150	45	3000	270	1	93,4	0,94	477	1

Performance Data 500V-50Hz

	P [kW]	Thrust F [kN]	n_N [min^{-1}]	I_N [A]	I_A / I_N* [A]	η [%]	cos φ [%]	T_N [Nm]	T_A / T_N* [Nm]
308 024 X01	45	45	3000	60	1	93,2	0,95	143	1
	55	45	3000	74	1	93,2	0,95	175	1
	67	45	3000	91	1	93	0,95	213	1
	75	45	3000	103	1	92,5	0,95	239	1
308 026 X01	75	45	3000	105	1	93,5	0,94	239	1
	83	45	3000	116	1	93,3	0,94	264	1
	93	45	3000	131	1	93,2	0,94	296	1
	100	45	3000	143	1	92,9	0,94	319	1
308 027 X01	100	45	3000	140	1	93,9	0,95	319	1
	110	45	3000	154	1	93,8	0,95	350	1
	130	45	3000	183	1	93,7	0,95	413	1
	150	45	3000	216	1	93,2	0,95	477	1

Performance Data 480V-60Hz

	P_N [kW/HP]	$P_{max.}$ [kW/HP]	Thrust F [kN]	n_N [min^{-1}]	$I_{max.}$ [A]	I_A / $I_{max.}$* [A]	η [%]	cos φ [%]	T_N [Nm]	T_A / T_N* [Nm]
308 014 X01X	45 / 60	52 / 70	45	3600	74	1	93,3	0,96	143	1
	55 / 74	63 / 84	45	3600	91	1	93,3	0,96	175	1
	67 / 90	77 / 103	45	3600	112	1	93	0,96	213	1
	75 / 100	86 / 115	45	3600	128	1	92,5	0,96	239	1
308 016 X01X	75 / 100	86 / 115	45	3600	129	1	93,5	0,95	239	1
	83 / 111	95 / 127	45	3600	143	1	93,3	0,95	264	1
	93 / 125	107 / 143	45	3600	162	1	93	0,95	296	1
	100 / 134	115 / 154	45	3600	178	1	92,7	0,95	319	1
308 017 X01X	100 / 134	115 / 154	45	3600	176	1	94,2	0,94	319	1
	110 / 147	126 / 169	45	3600	193	1	94,2	0,94	350	1
	130 / 174	150 / 201	45	3600	229	1	94	0,94	413	1
	150 / 201	172 / 230	45	3600	270	1	93,4	0,94	477	1

Performance data are based on measurements with Franklin Electric original equipment!

*Since this is an integrated system (motor plus electronics) these figures relate to VFD input

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8" High Efficiency Solar System

Quality in the Well

Franklin Electric is pleased to announce the introduction of the extended SOLAR feature for its 8" High Efficiency Submersible Borehole systems (HES).
These systems, consisting of a synchronous submersible NEMA motor associated with a variable frequency drive and matching output filter.

System Product advantages:

- One-stop shop – perfectly matching components guarantee first class performance / efficiency
  ⇨ *Less panels, more water respectively*
- Direct DC feeding
- Special MPP algorithm for centrifugal borehole pumps
- Easy set-up due to tailored pre-setting, user interface and **Franklin Electric software**
- Reduced amps
  ⇨ *Smaller drop lead cross size*
- Higher power density
  ⇨ *Lightweight*
- Significant lower motor heat rise
  ⇨ *Increased lifetime*
- Communication Modbus (RS485 and Ethernet)

System Technical Specification:

- Rating: 37 - 150kW
- Power Supply: Voltage 400 - 800V DC (min. starting voltage 440V)
- Frequency 30 - f_N (50 respectively 60Hz)

System Options:

- Plug-in card 6x DI/DO - 308 170 201
- Plug-in card PT100 - 308 170 202
- Plug-in card Profibus - 308 170 203
- Plug-in card 1x AI & 2x AO 308 170 206
- Other voltages
- Sinus output filters in IP21
- PT100 protection
- Motors in 316SS and 904L

Model Numbers Solar System Option

400V High Efficiency Solar System (Motor, VFD & Filter and Flow switch)

P_N [kW]	VFD IP21 & Filter IP21	
	du/dt Filter	Sinus Filter
75	308 014 001S*	308 014 101S*
100	308 016 101S*	308 016 101S*
150	308 017 101S*	308 017 101S*

*Non-stock items **More ratings and IP54 Kits on demand
230V Kits on demand
For lead length > 120m please consult Franklin Electric

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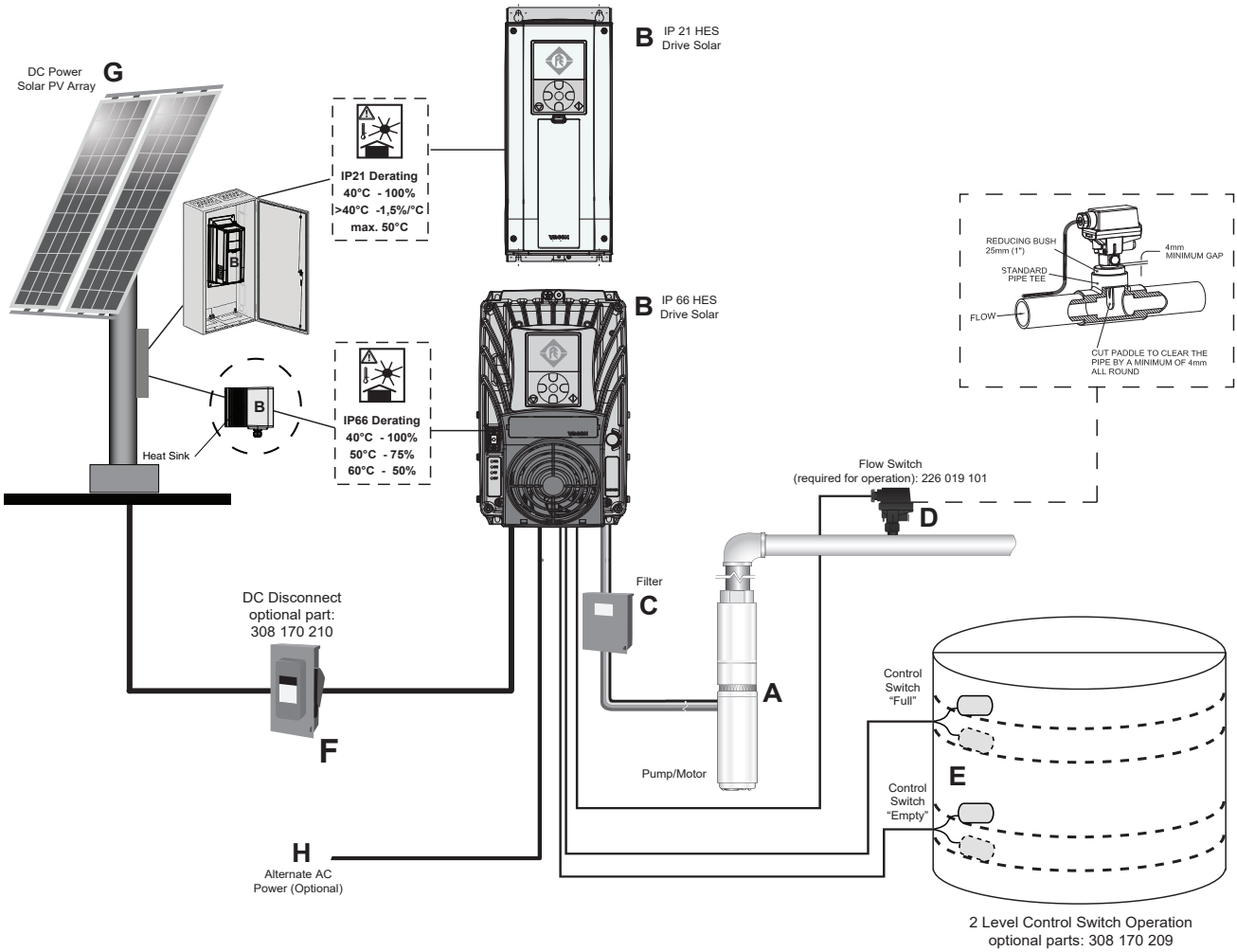
Performance Data 400V-50Hz

	P_N [kW]	Thrust F [kN]	n_N [min^{-1}]	I_N [A]	I_A / I_N* [A]	η [%]	cos φ [%]	T_N [Nm]	T_A / T_N* [Nm]
308 014 X01	**75**	**45**	3000	128	1	92,5	0,96	239	1
308 016 X01	**100**	**45**	3000	178	1	92,7	0,95	319	1
308 017 X01	**150**	**45**	3000	270	1	93,4	0,94	477	1

Performance data are based on measurements with Franklin Electric original equipment!

*Since this is an integrated system (motor plus electronics) these figures relate to VFD input



A. High Efficiency Motor and Pump
B. HES Drive Solar
C. OutputFilter
D. Flow Switch (226 019 101)
E. Level Control Switch (not included- serarate order 308 170 209)
F. DC Disconnect, not included- seperate order:
0 - 11A/800V DC - 308 170 313
12 - 22A/800V DC - 308 170 325
G. Solar Array (not included)
H. AC Alternative Power supply (not included)

Control modes and necessary sensor technologies

Process reference	Control reference	Flow meter	Pressure sensor	Level sensor	PT100 sensor & Drive slot card	Flow switch (digital)
Solar	No				Yes*	mandatory

*please consult Franklin Electric

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8" High Efficiency Motor

Motor Features:

- 8" Motor in 304SS / CI (Powder Coated)
- PE2/PA winding as a standard
- SandFighter® SIC seal system
- Non-contaminating FES93 filling
- All motors pre-filled and 100% tested
- Max. storage temperature -15 ... +60°C
- Drinking water approved

Motor Technical Specification:

- 75 / 100 / 150kW
- Power supply 400V/100Hz
- 8" NEMA flange
- Protection IP68
- 10 Starts per hour
- Installation vertical (for horizontal operation please consult FE)
- Motor lead in 6 m length
- 30°C nominal ambient temperature with 0,5m/sec cooling flow

Motor Options:

- Other voltages
- PT100 temperature sensor (retrofitable)
  - ⇨ *VFD PT100 Plug-in Card (308 170 202) necessary*
- Motors complete in 316SS and 904L available

System model number	P [kW]	400V / 100 Hz 304SS/CI Motor model number
308 014 xxx	75	263 014 5311
308 016 xxx	100	263 016 5311
308 017 xxx	150	263 017 5311

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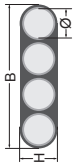
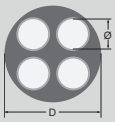
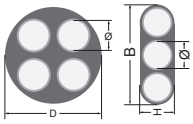
8" Rewindable Motors - Motor Leads*

DOL									
Lead	**kW**	**Ø (mm²)**	**B / H (mm)**		**Lengths (m)**	**Qty.**	**Lead Mod.- Nr.**	**Lead seal Kit 304/316 Mod.- Nr.**	**Lead seal Kit 904L Mod.- Nr.**
	75	4G16	B	38,0	6	1	308 710 108	308 660 618	308 660 620
			H	12,8					
	100	4G25	D	32	6	1	308 710 140	308 660 633	308 660 634
	150	4G25 + 3X25	D	32	6	1	308 710 141	308 660 635	308 660 636
			B X H	37,5 x 16					
Ground lead (optional)	**kW**	**Ø (mm²)**	**D (mm)**		**Lengths (m)**	**Qty.**	**Mod.-Nr.**		
	all ratings	1G25	13,0		8	1	308 053 080		
Lead opening seal kit		30 – 93 kW DOL / YΔ					Mod.-Nr.:	304/316	308 660 617
								904L	308 660 625

For PE2/PA engines additionally the special Tape 700 541 688 is absolutely necessary

*Cables are designed for submerged operation. For air operation please consult Franklin Electric..

Motor Drop Lead

Lead lenghts in meters for 400V-50Hz / 460V-60Hz and max. 3% voltage drop at 50°C ambient

P_N [kW]	cable size mm², copper wire - 90°C rated insulation											
	16	25	35	50	70	95	120	150	185	240	300	400
45	65	100	140	200	280	370	460					
55		85	120	170	230	300	370	450				
67			90	130	180	240	300	360	420			
75			80	115	160	200	260	310	370	460		
83				100	140	190	235	285	340	420		
93					115	160	200	240	290	350	410	
110					100	140	170	210	250	305	360	440
130						115	145	175	210	260	305	370
150							120	150	175	215	255	310

For lead lenght > 120m please consult Franklin Electric.
Further potential energy saving due to more conservative lead sizing (< 3% voltage drop)

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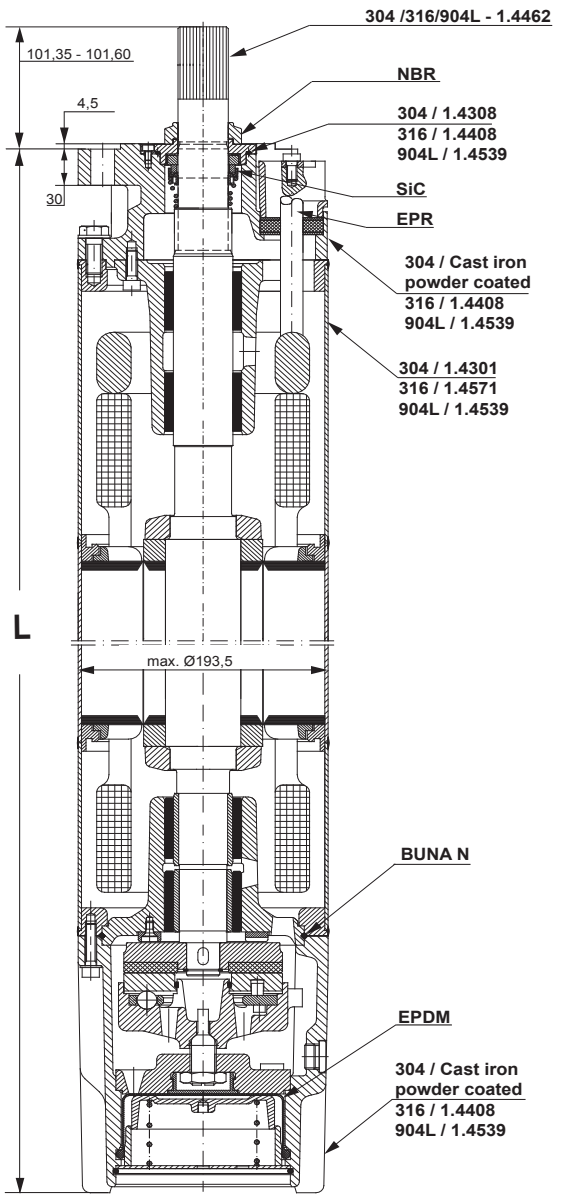
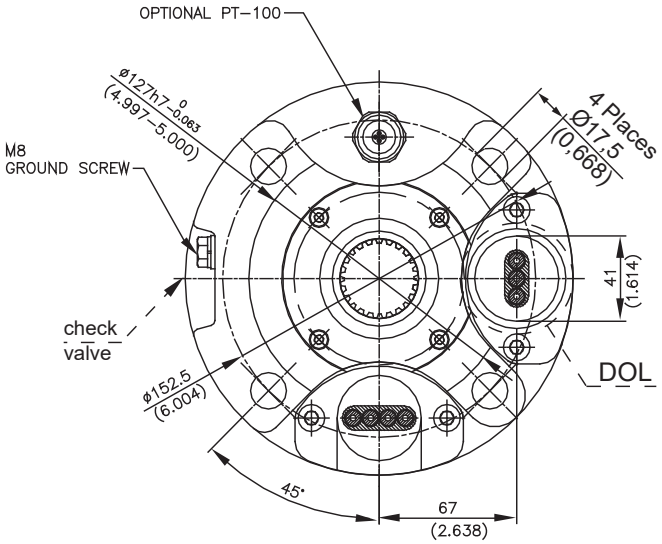
8" Rew Motor Design

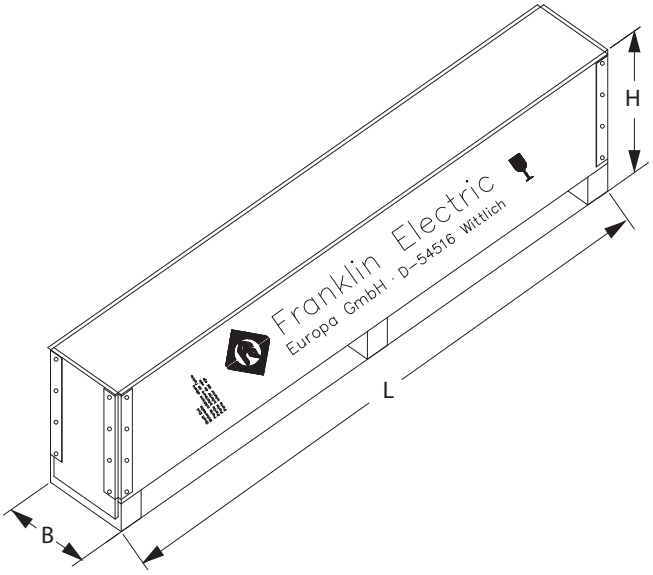
Motor - 304/316SS/904L



End Bell



Motor Box



(sample drawing)

P [kW]	Motor Lenghts L [mm]	Motor Weights [kg]		Motor Shipping Size [mm]		
	304 / 316 / 904L	304 / 316 / 904L	Incl. Pack [kg]	B	H	L
75	1205	150	179	310	472	1596
100	1316	169	198	310	472	1596
150	1594	215	252	310	472	1996

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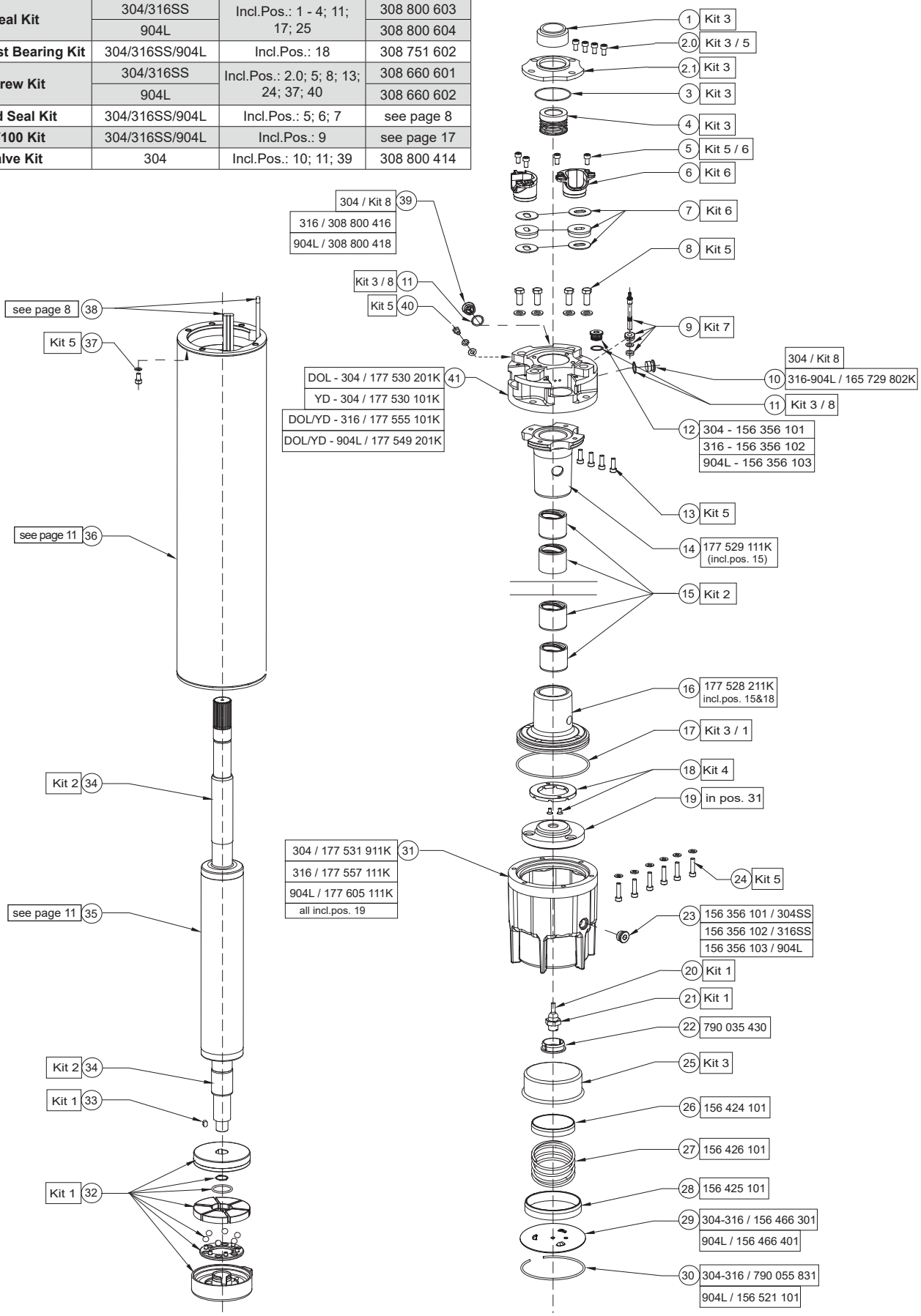
8" PM Rewindable Spare Parts 304 / 316SS / 904L

Kit 1 Thrust Bearing Kit	304/316SS/904L	Incl.Pos.: 17; 20; 21; 32; 33	308 750 601
Kit 2 Radial Bearing Kit	304/316SS/904L	Incl.Pos.: 15; 34	308 751 603
Kit 3 Seal Kit	304/316SS	Incl.Pos.: 1 - 4; 11; 17; 25	308 800 603
	904L		308 800 604
Kit 4 Up-Thrust Bearing Kit	304/316SS/904L	Incl.Pos.: 18	308 751 602
Kit 5 Screw Kit	304/316SS	Incl.Pos.: 2.0; 5; 8; 13; 24; 37; 40	308 660 601
	904L		308 660 602
Kit 6 Lead Seal Kit	304/316SS/904L	Incl.Pos.: 5; 6; 7	see page 8
Kit 7 PT100 Kit	304/316SS/904L	Incl.Pos.: 9	see page 17
Kit 8 Valve Kit	304	Incl.Pos.: 10; 11; 39	308 800 414



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304 / 316SS Stator and Rotor Model numbers 400V / 50Hz
(Motors starting 08.2017)

P [kW]	Stator (incl. winding and 6m motor lead)		Rotor
	U_N [V]	DOL [PE2/PA]	
75	400V	327 154 702K	161 123 811K
100	400 V	327 155 702K	161 123 812K
150	400 V	327 156 704K	161 123 813K

304 / 316SS Stator and Rotor Model numbers 400V / 50Hz
(Motors up to 07.2017)

P [kW]	Stator (incl. winding and 6m motor lead)		Rotor
	U_N [V]	DOL [PE2/PA]	
75	400V	327 154 901K	161 123 801K
100	400 V	327 155 901K	161 123 802K
150	400 V	327 156 904K	161 123 803K

Windings 400V-50Hz

P [kW]	U_N [V]	Mod.-No. Windingkit	Turns per coil	Wire diameter [mm]	Type of Isolation	Group connection	Total Wire length [m]	Resistance coil [Ω]	Resistance DOL (U1-V1) [Ω]
75	**400**	327 154 999	16	1,9/2,1&1,8/2,8 (2GR II)	PE2/PA	Parallel Y	290	0,146	0,146
	500	327 151 999	20	2,3/3,5 (2GR II)			350	0,235	0,235
100	**400**	327 155 999	12	2,0/3,1&2,1/3,3 (2GR II)	PE2/PA	Parallel Y	260	0,103	0,103
	500	327 144 999	17	2,5/3,8 (2GR II)			350	0,213	0,213
150	**400**	327 156 999	16	1,9/2,1&1,8/2,8 (4GR II)	PE2/PA	Parallel Y	432	0,114	0,057
	500	327 145 999	20	2,3/3,5 (4GR II)			540	0,188	0,094

Insulation resistance (20°C / 500 VDC)

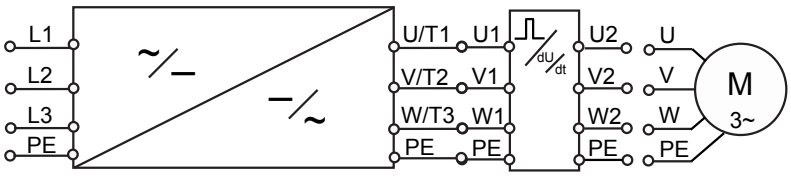
New motor without drop cable	400 >	MΩ
Used motor without drop cable	20 >	MΩ
New motor with drop cable	4 >	MΩ
Used motor with drop cable	1	MΩ

Motor Repair Instructions

Pictured Repair Instructions 304SS / 316SS / 904L	Mod.Nb.:	308 018 697

Electrical Connection

DOL



U	V	W	PE
brown	grey	black	yellow/green

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Variable Speed Drive (VFD)

VFD Features:

- Supports induction and permanent magnet motors
- Top class protection IP54/21 enclosure classes
- Optimized for submersible permanent motor feeding – first class performance (Tailored pre-setting, user interface and software)

VFD Technical Specification:

Technical Data		
Power suppy	Input voltage U_{IN}	380 - 500V ; -10%....+10%
	Input frequency f_{IN}	47 - 65Hz
	Starts per hour	20 ; with min 3min rest period
Motor connection	Output voltage	0 - U_N
	Output current	I_N at rated Ambient temperature (40°C) Overload:IP21: 1,1 x I_N
	Output frequency	0- f_N, resolution 0,01Hz
Performance	Efficiency	97,5%
Control characteristics	Switching frequency	3,6 ..... 6 kHz; default setting 4 kHz
Ambient conditions	Operation temperature	-10°C...+50°C (>40°C with derating)
	Storage temperature	-40°C ....+70°C
	Altitude	3000m (>1000m with derating)
EMC	Immunity & Emisions	Complies with EN 61800-3, Category C2 - first and second environment
Communication	RS 485	Standard: Modbus
	Ethernet	Standard: Modbus
I/O connections	Digital Input (DI)	6x
	Analog Input (AI)	2x
	Analog Output (AO)	1x
	Relay Output (RO)	2x (change-over contact)
For further details please see seperate Franklin Electric Quick Installation guide and VFD literature.		

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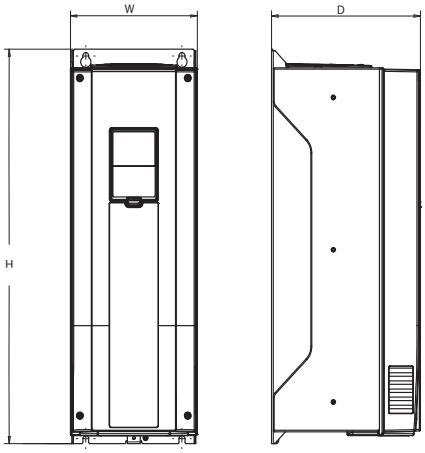
VFD Model Numbers and Dimensions 400-500V / 50-60Hz

IP54/21/00



VFD Model Numbers and Dimensions

System Model Number	AC Drive Type	IP Type	I_N [A]	Dimensions WxHxD [mm]	Weight [kg]
308 014 001/101	314 000 116	21	140	290x966x343	66
308 016 001/101	314 000 117	21	205*	290x966x343	66
308 017 001/101	314 000 118	00	310*	480x971x365	104
308 014 201/301	314 000 113	54	140	290x966x343	66
308 016 201/301	314 000 114	54	205*	290x966x343	66
308 017 201/301	314 000 115	54	310*	480x1150x365	108

* Without derating for default switching frequency setting

VFD Options:

- Plug-in card 6x DI/DO 308 170 201
- Plug-in card PT100 308 170 202
- Plug-in card Profibus 308 170 203
- Plug-in card 1x AI & 2x AO 308 170 206
- Replacement Battery VFD 308 170 205

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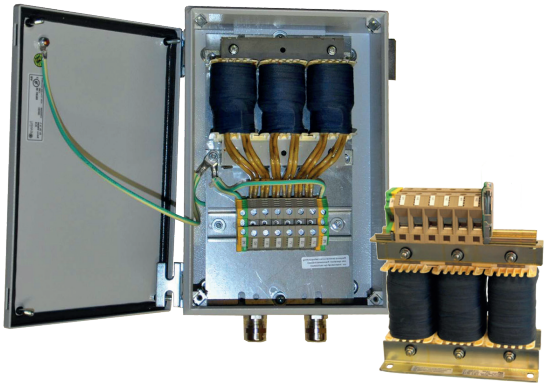
Output Filter



Output Filter Features:

- dV/dt filter for lead lengths up to 120m, for lead lengths >120m please consult Franklin Electric.
- filter available in IP54 and IP00
- Optimized for submersible permanent magnet motor feeding

Output Filter Technical Specification:

- Voltage → 380 - 500V
- Frequency → 0 - 120 Hz
- Switching Frequency → 4kHz
- Ambient Temperature → < 40°C

Output Filter Options:

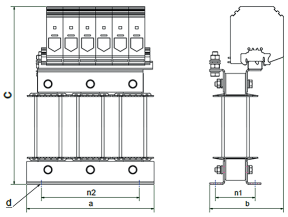
- Sinus filter in IP54 and IP00 for lead length >120m and/ or special applications
- Other voltages

400/500V dV/dt Output Filter Model Data - Protection Class IP00

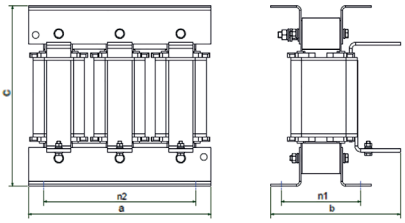
System model number	Filter order code	I_N [A]	Dimensions** [mm]						weight [kg]	terminal		clamping torque	
										main	PE	main	PE
			a	b	c	n1	n2	d		[mm²]		[Nm]	
308 014 001	314 005 130	140	240	139	335	75	185	10	14	150	M10	25 - 30	46 - 50
308 016 001	314 005 119	205	240	149	335	85	185	10	19	150	M10	25 - 30	46 - 50
308 017 001	314 005 120	310	300	168	256	107	224	10	35	200	M10	79 - 85	46 - 50

Filter outlines**

314 005 130 / 119



314 005 120

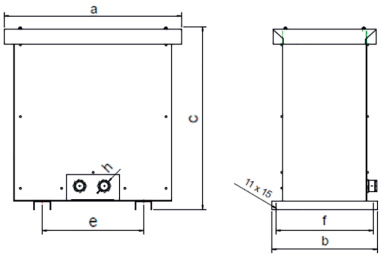


400/500V dV/dt Output Filter Model Data - Protection Class IP54

System model number	Filter order code	I_N [A]	Dimensions** [mm]					cable Ø [mm]	weight [kg]	terminal		clamping torque	
										main	PE	main	PE
			a	b	c	e	f			[mm²]		[Nm]	
308 014 201	314 005 124*	140	550	560	550	137-289	520	6x23-35,5	52	95	M10	15 - 20	46 - 50
308 016 201	314 005 125*	205	560	560	550	137-289	520	6x23-35,5	62	150	M10	25 - 30	46 - 50
308 017 201	314 005 126*	310	560	560	550	137-289	520	6x23-35,5	81	240	M10	25 - 30	46 - 50

*Floor mount

Floor mount outlines**



*By changing the supplier it can be differentiated with the dimensions!

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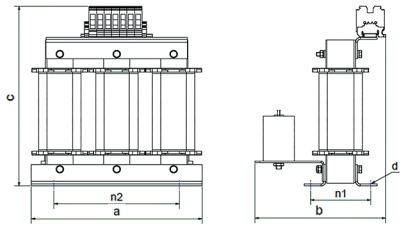
400/500V Sinus Filter Model Data - Protection Class IP00

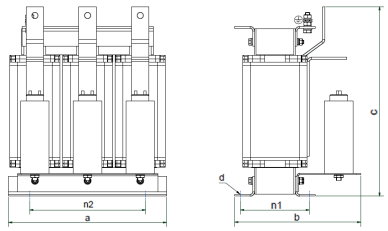
System model number	Filter order code	I_N [A]	Dimensions** [mm]						weight [kg]	terminal		clamping torque	
										main	PE	main	PE
			a	b	c	n1	n2	d		[mm²]		[Nm]	
308 014 101	314 005 121	140	360	311	413	157	264	10	87	95	M10	15 - 20	46 - 50
308 016 101	314 005 122	205	420	335	460	173	316	13	105	150	M10	25 - 30	46 - 50
308 017 101	314 005 123	310	420	365	460	173	346	13	140	200	M10	79 - 85	46 - 50

Filter outlines**

314 *** 121 / 122



314 *** 123

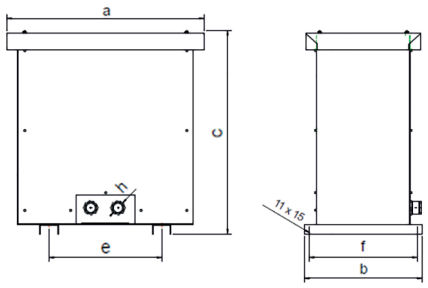


400/500V Sinus Filter Model Data - Protection Class IP54

System model number	Filter order code	I_N [A]	Dimensions** [mm]					cable Ø [mm]	weight [kg]	terminal		clamping torque	
										main	PE	main	PE
			a	b	c	e	f			[mm²]		[Nm]	
308 014 301	314 005 127*	140	770	610	620	357-509	570	6x23-35,5	167	95	M10	15 - 20	46 - 50
308 016 301	314 005 128*	205	1150	920	890	407-1081	880	6x23-35,5	303	150	M10	25 - 30	46 - 50
308 017 301	314 005 129*	310	1150	920	890	407-1081	880	6x23-35,5	429	240	M10	25 - 30	46 - 50

*Floor mount

Floor mount outlines**



** By changing the supplier it can be differentiated with the dimensions!

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SS Pump

For any pump support please refer to:

http://www.etechpumps.com

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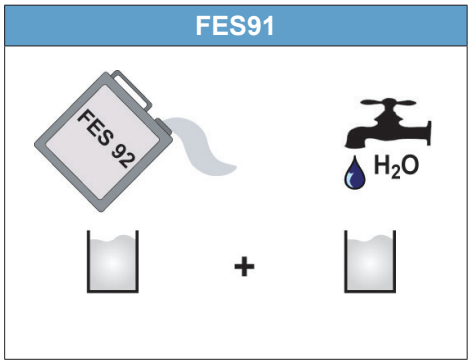
Motor Filling Liquid

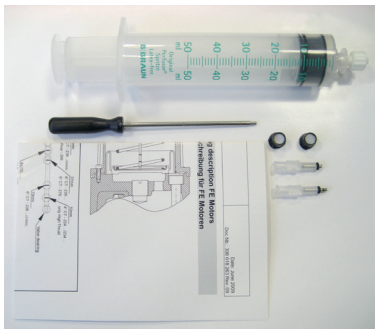


Mod.Nb.:

308 353 941

Motor Filling Kit

This kit contains all necessary tools to check and replenish Franklin Electric submersible motors with FES 91, 92 or 93 filling liquid (fill solution/concentrate must be ordered separately).

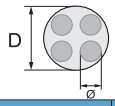


PT100 8" Rewindable Motor

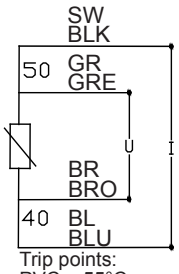
Application

- Fitted into the upper end bell flange , all end bells 8" Rewindable are prepare for installation PT100
- Measures the temperature of the filling liquid
- Conductor with a resistance proportional to the temperature
- Allows monitoring the temperature continuously

The above-ground equipment is not available from Franklin Electric and is typically part of a custom panel or data acquisition system. PT100 sensor retrofit kits from Franklin Electric come with complete instructions and allow for easy field installation.



	Ø [mm²]	D [mm]	Lead Lenghts [m]		8" Rewindable	
					304/316	904L
PT 100	4X0,5	8	10	**Mod.- No.:**	308 016 401	308 016 422
PT 100	4X0,5	8	20	**Mod.- No.:**	308 016 402	-
PT 100	4X0,5	8	30	**Mod.- No.:**	308 016 403	-
PT 100	4X0,5	8	50	**Mod.- No.:**	308 016 405	308 016 426



Trip points:
PVC = 55°C
PE2/PA = 75°C

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8" Motor/Pump Couplings

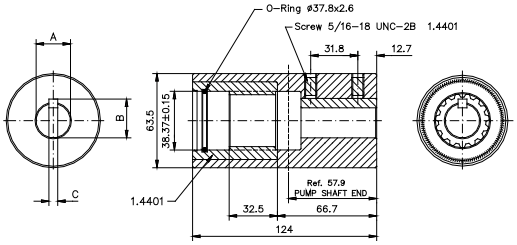
Application: Allow connection of pump to motors shaft.

Specification:

- Material: 304SS / 316 SS
- NEMA standard measuring on motor shaft
- separation washer between motor & pump shafts

8" Motor/Pump Couplings

Outline Drawing:



Ordering information

Part No.	Coupling Material DIN / AISI	Dimension A (mm) Max. / Min.	Dimension B (mm) Max. / Min.	Dimension C (mm) Max. / Min.
156 563 901	1.4005 (304)	25,425 / 25,413	28,27 / 28,17	6,38 / 6,32
156 563 921	1,4404 (316SS)			
156 563 902	1.4005 (304)	30,188 / 30,175	33,73 / 33,63	7,96 / 7,91
156 563 922	1,4404 (316SS)			
156 563 903	1.4005 (304)	31,775 / 31,763	35,36 / 35,26	7,96 / 7,91
156 563 923	1,4404 (316SS)	38,125 / 38,113		
156 563 904	1.4005 (304)	38,125 / 38,113	42,37 / 42,27	9,55 / 9,50
156 563 924	1,4404 (316SS)	38,125 / 38,113		
156 563 905	1.4005 (304)	19,085 / 19,063	20,70 / 20,52	4,84 / 4,79
156 563 906	1.4005 (304)	30,188 / 30,175	33,02 / 32,92	6,38 / 6,32
156 563 926	1,4404 (316SS)			
156 563 907	1.4005 (304)	22,250 / 22,238	24,54 / 24,36	6,43 / 6,38
156 563 908	1.4005 (304)	22,024 7 22,011	25,53 / 25,32	8,03 / 7,98
156 563 931	1,4404 (316SS)			
156 563 929	1,4404 (316SS)	42,888 / 42,850	47,12 / 47,04	9,55 / 9,50
156 563 909	1.4005 (304)	25,024 / 25,011	28,70 / 28,30	8,03 / 7,98
156 563 932	1,4404 (316SS)			

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Notes

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Katalog revision changes notice

Nb.	Changes Rev.14 to Rev.15	Page
1	add the 8" HES Solar system	
2		
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