

NOT JUST AIR.

Oil injected rotary screw compressors with belt transmission from 2.2 to 75 kW.





## **DARWIN 2.2-75**

#### Compact, silent and highly reliable. Available in various versions to fulfill different application requirements.

Power System screw compressors in the Darwin range with belt transmission provide a high performance solution for the most demanding applications. The Darwin range was designed to fulfill compressed air requirements in terms of reliability and efficiency, excellent energy consumption, quiet operation, reduced maintenance costs and easy installation and operation. The Darwin range offers a broad selection of models, from 2.2 to 75 kW with operating pressures between 7.5 and 15 bar. Each compressor is built according to the highest standards, using high quality components to guarantee a long operating life and complete reliability. The transmission with high strength Poly-V belt ensures long service life and extended maintenance intervals.

#### **MADE IN ITALY**







Employees across 3 continents	1300
Global service centres	1500
Countries we export to	120
Screw compressors produced per year	11000
Manufacturing plants	5

DARWIN 45 - 55 45 - 55 kW

PERCE 100

ADVANCED CONTROLLER

EX

MOTOR

#### The group

The Power System brand is part of the FNA international group, which has 75 years of experience in the compressed air industry. FNA, the world's leading manufacturer of piston compressors, undisputed leader in the production of professional compressors and among the first in Europe in the industrial screw compressor segment, has established itself on the market thanks to its strengths: dynamism, technological innovation, know-how, creativity, integrated marketing, flexible production processes and 'tailor-made' customer service.

The group counts on an experienced and highly qualified team, capable of interpreting the market needs in defining, developing and distributing its products.

Power System's industrial range is wide and comprehensive and includes direct and belt-drive, single and two-stage rotary screw compressors, from 2.2 to 315 kW.



**DARWIN 56 - 75** 55 - 75 kW

 Darwin 75 kW models are equipped with new electric motors, even more performing, in "IE4 Super Premium Efficiency" energy efficiency class.

A complete range from 2.2 to 75 kW for every compressed air requirement





## **DARWIN** with asynchronous motor



#### High efficiency and energy saving

Significant energy savings thanks to the "IE3 Premium Efficiency class" motors, reaching the "IE4" class in the Darwin 75 kW models. Original Power System design. Air-ends of our design and production, ensuring high air yield and low energy consumption. Air and oil circuits components optimization. Latest generation inverters.



MOTOR

#### Silent operation

The low speed air-ends and radial fans allow Darwin products to maintain the lowest noise values in their category, thus, ensuring the possibility for the installation close to the point-of-use.



#### Simplified maintenance

All machine parts subject to periodic maintenance are placed in a visible and easily accessible position.

Maintenance costs are reduced thanks to the use of selected, top quality materials.



#### Sturdy construction

The compact design, created to achieve the best performance and excellent reliability, factory-tested and proven by thousands of installations around the world, make Darwin a long-lasting machine.



#### Remote monitoring and preventive maintenance

Our optional SMS system allows the remote control of the compressor and promptly informs the user or assistance center of the machine's condition, reporting any failures or need to perform maintenance.



#### **Refrigerated dryer** (optional)

The models from 2.2 to 37 kW can be equipped with a refrigerated dryer powered and controlled separately by its own electronic controller.













## **Quality is our priority**

#### "In-house production" air-ends and intake regulators

What makes our Darwin screw compressors unique is the guarantee of a product developed entirely in Italy: from the design to the packaging, each stage of production is closely followed by our engineers and aimed at developing a machine which fulfills the best requirements in terms of efficiency, quality, energy savings, performance, silent operation.

**FS50** 

**FS100** 

FS140

**FS14** 

**FS270** 

Each component is thoroughly selected from the best manufacturers in the world to perfectly integrate with our air-ends and intake regulators. Each compressor, prior to its shipment to the clients, goes through functional tests, final testing and pre-shipment auditing, which certifies the compliance to our main 50 standards/requirements. Moreover, our Quality System is UNI EN ISO 9001:2015 since 1996.

	Power range [kW]	Max. operating pressure [bar]
FS14	2.2 <b>-</b> 5.5	15
FS26	5.5 <b>-</b> 15	15
FS50	16 <b>-</b> 22	15
FS100	31	15
FS140	38 <b>-</b> 55	13
FS270	56 <b>-</b> 75	13

## We have been producing air-ends for over 30 years

Power System air-ends feature rotors with an optimised profile and outstanding performance. The production process is completely integrated thanks to avant-garde machine tools and sophisticated control instrumentation that guarantees the highest level of quality.

A solid CAD modelling system optimises the set-up of the components.

Each single rotor is cut in four well-defined manufacturing stages to achieve extremely high execution precision and repeatability. This level of construction accuracy means that each male rotor can be fitted with any female rotor. All of the air-ends are tested twice: individually after

All of the air-ends are tested twice: individually after assembly later upon installation and on the complete machine.



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	Power range [kW]	Max. operating pressure [bar]
IR8	2.2 - 4	15
IR10DC	4 <b>-</b> 7.5	15
IR30DC	11 - 22	15
IR60	31	15
IR70	38 - 45 <b>-</b> 55	13
IR100	56 <b>-</b> 75	13



**MANUFACTURED** 

#### **Italian excellence**

Power System is a top Italian brand that combines craftsmanship with the most modern industrial technologies and highly specialised labour. The IN-HOUSE MANUFACTURED trademark is the expression of

typical Italian quality and creativity, recognised and appreciated around the world, and which has always been the distinguishing element of our industrial production.

#### Intake regulators and separator blocks

In addition to the complete product and the air-ends, Power System also produces a vast range of intake regulators, thermostatic valves, separator blocks and accessories for the assembly of rotary screw compressors.



## **DNAir smart controllers**



#### **DNAir1** Installed on models from 4 to 15 kW.

The DNAir1 controller is used to completely programme machine operation, in various languages, also offering remote ON-OFF and access to the maintenance program. The backlit screen shows: operating pressure, loading/operating hours, no-load/loaded operation, oil temperature. It keeps a log of the alarms list to simplify troubleshooting. A single start/stop button positioned for easy access.

Four maintenance timers (air filtercartridge, oil, oil filter, separator filter).

- > Auto-restart after power failure.
- Programmable cooling fan temperature.
- Programmable remote control start of the compressor.
- > Integrated phases sequence control.

#### **DNAir2** Installed on models from 18.5 to 75 kW.

The DNAir2 controller was specially designed for intuitive and flexible programming, it adjusts and controls the operation of the compressor, guaranteeing its efficiency and safety. It features a large backlit LCD display, with simple and intuitive information icons and commands with multilingual drop-down menus.

The multi-function backlit LCD display shows:

- > Operating pressure values
- > Oil temperature
- > Compressor status (stand-by, idle, load)
- Fan status (off/on)
- > Date and time
- > Remaining hours to maintenance
- > Inverter percentage of use (only DV models)
- > Compressor duty cycle (tot. hours with load)



#### Weekly programming

With the DNAir2 controller it is possible to set up to 9 separate compressor operating programs.

For each program it is possible to set the start and stop times, the days of the week it needs to operate and the relative pressure range.

With a multiple-compressor system, whether fixed or variable speed, it is possible to set various programs so as to create a "virtual network" (therefore without having to physically connect then).



## Total control, even remotely

### **SMS Device**

SMS is the innovative tool to remotely control and perform predictive maintenance on screw compressors equipped with a DNAir2 controller. If the device is configured on internet networks via Wi-Fi or Ethernet, it allows e-mails to be sent automatically in case of faults and/or automatic regular e-mails (hourly, daily or weekly) to monitor the proper operation of the compressor and the remaining hours for the main programmed maintenance.

#### Preventive and targeted maintenance

- > automatic sending of e-mails in case of alarms,
- option of sending e-mails reporting the status of the compressor at a set frequency (hourly, daily or weekly).

#### **Compressor remote control**

- > access to the various menu levels (user, service),
- > on/off control,
- > no software to be installed,
- > compressor online status check.

9062744 ANTENNA KIT + SMS DEVICE

SYSTEM

### EasyX4



#### Optimised control in the compressor room

Many compressed air stations include several compressors: EasyX4 is the easiest solution to manage complex compressor systems, with fixed speed, programmable on a weekly basis, capable of configuring up to 4 units, based on the amount of air actually required.

Three programming levels:

- MANUAL: compressors set on a given operating pressure range;
- AUTOMATIC: with pressure range exchange after a programmable time period;
- GROUP PROGRAMMING: the compressors can be switched within groups.

#405531604 EASY X4 CONTROL UNIT





#### **Pre-filtering panel**

The ventilation circuit comes complete with a pre-filter panel (standard on all models from 18.5 to 75 kW) filtering incoming dust and keeping the inside of the machine clean.



#### **Radial ventilation**

This combines excellent cooling of the compressor with very silent operation.



#### **Oil filter and** oil separator filter

Both are spin-on, ensuring maximum efficiency and simplicity of maintenance.

#### **Reliable transmission**

The Poly-V belt drive ensures significantly lower power losses and a three times longer life than standard "V" belts mounted on other compressors in the market. The belt is tensioned by means of a slide tensioner.









#### **Pressure transducer**

It ensures an optimal and stable operation over the time. It allows to change the work pressure directly from the electronic controller without any mechanical intervention.

#### **Simplified maintenance**

Fast and simple ordinary maintenance thanks to the large removable panels offering easy access to the internal components.





DARWIN 38

#### **Minimum pressure valve**

Built with oxidation resistant materials, the valve is machined from solid. Great attention to construction to ensure operation even in extreme conditions.



#### **Intake regulator**

Fully designed and produced at our sites, it adjusts compressor operation to guarantee minimum pressure during no-load operation and maximum energy savings at start-up.



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#### **Air filter**

The two stage filter cartridge allows use in dusty environments.

## Variable speed Darwin DV

The inverter, intalled in the electrical panel of the compressor, dynamically adjusts the speed of the electric motor and the air-end, adjusting the delivered air flow to the system's real demand.

It also eliminates current surges thanks to the soft start-up and drastically reduces operating cycles in no-load operation, further limiting energy waste and company costs.

#### Significant energy savings

- 16%

Maintenance 13%

In comparison to a fixed speed compressor, with a Darwin DV it is possible to achieve significant savings, up to **30%** on energy consumption and, therefore a reduction of approximately 16% of the cost of the life cycle in 10 years of use.

Energy 50%

(KNNhlyear)

Annual energy consumption

FIXED SPEED



Efficiency is synonymous with sustainability

The search for energy efficiency in the production processes is one of the main leveraging points to maintain our competitivity advantage on the market also under the profile of sustainability. Living sustainably means preserving the natural resources as much as possible: choosing a Darwin or a Darwin DV, reducing energy consumption and CO<sub>2</sub> emissions, therefore also represents an ecological choice.

Babes Seed

The calculation represented in the graphs is based on the energy analysis of a 37 kW model, with 55% duty cycle, considering an energy cost of  $0.17 \notin$ /kWh and 47 work weeks per year.

Energy

savings

Energy

consumption



# Analyze your company's consumption to minimize energy waste.

Compressed air is an essential resource in industrial companies, as well as one of the main sources of energy consumption. Energy consumption can account for up to 90% of the total lifecycle cost of an air compressor, and energy costs are constantly increasing, making it fundamental to monitor, analyse and reduce them.

#### Why run an energy audit?

The energy efficiency of a production plant using compressed air allows for countless advantages for the company's entire production process, in terms of consumption and costs. At the end of the energy audit, an analytical report is generated illustrating implementable improvement actions, firstly identifying which compressor to install, with the most suitable power to fulfil the specific production process.

## Our experience at your service

Thanks to thirty years of experience in the industrial sector, Power System can provide companies with a detection and analysis service for professional auditing (EATool).



	ideal for compressors' rooms up to 3 units
<b>EA 400</b> code 9062747	<ul> <li>4 analogue inputs:</li> <li>- 3 amperometric clamps</li> <li>- 1 pressure sensor</li> </ul>
	1 extension for cables (10m long)
	>4.3" colour touch screen display
	ideal for compressors' rooms up to 4 units
	ideal for compressors' rooms up to 4 units
EA 500	<ul> <li>ideal for compressors' rooms up to 4 units</li> <li>5 analogue inputs: <ul> <li>4 amperometric clamps</li> <li>1 pressure sensor</li> </ul> </li> </ul>
<b>EA 500</b> code 9062748	<ul> <li>ideal for compressors' rooms up to 4 units</li> <li>5 analogue inputs: <ul> <li>4 amperometric clamps</li> <li>1 pressure sensor</li> </ul> </li> <li>2 extensions for cables (10m long)</li> </ul>



ELECTROMECHANICAL		Air						м	ax.		Sound	Air	Net	Net	Gross	Gross
2 2-4 kW	Code	receiver	Po	wer	AII	r outflow r	ate	pres	ssure	Air-	level	outlet	weight	dimensions	weight	dimensions
		I	kW	HP	l/min.	m³/min.	c.f.m.	bar	p.s.i.		dB(A)	Ø	kg	L x W x H (mm)	kg	L x W x H (mm)
2.2 kW																
Darwin SE 2.2-08	V51JU72PWS045	-	2.2	3	325	0.33	11	8	116	FS14	58	1/2"	93	580x480x760	104	720x670x970
Darwin SE 2.2-10	V51JT72PWS045	-	2.2	3	290	0.29	10	10	145	FS14	58	1/2"	93	580x480x760	109	720x670x970
Darwin SE 2.2-08 M	V51JU60PWS045	-	2.2	3	300	0.30	11	8	116	FS14	58	1/2"	98	580x480x760	109	720x670x970
Darwin SE 2.2-10 M	V51JT60PWS045	-	2.2	3	240	0.24	8	10	145	FS14	58	1/2"	98	580x480x760	109	720x670x970
Darwin SE 2.2-08-200	V77JU72PWS045	200	2.2	3	325	0.33	11	8	116	FS14	58	1/2"	142	1480x520x1280	175	1560x660x1430
Darwin SE 2.2-10-200	V77JT72PWS045	200	2.2	3	290	0.29	10	10	145	FS14	58	1/2"	142	1480x520x1280	175	1560x660x1430
Darwin SE 2.2-10-200 M	V77JT60PWS045	200	2.2	3	240	0.24	8	10	145	FS14	58	1/2"	148	1480x520x1280	181	1560x660x1430
Darwin SE 2.2-08-200 DF	V77JU72PWS145	200	2.2	3	325	0.33	11	8	116	FS14	58	1/2"	164	1480x520x1280	197	1560x660x1430
Darwin SE 2.2-10-200 DF	V77JT72PWS145	200	2.2	3	290	0.29	10	10	145	FS14	58	1/2"	164	1480x520x1280	197	1560x660x1430
Darwin SE 2.2-10-200 DF M	V77JT60PWS145	200	2.2	3	240	0.24	8	10	145	FS14	58	1/2"	144	1480x520x1280	190	1560x660x1430
3 kW																
Darwin SE 3.0-08	V51JS72PWS045	-	3	4	430	0.43	15	8	116	FS14	59	1/2"	99	580x480x760	110	720x670x970
Darwin SE 3.0-10	V51JQ72PWS045	-	3	4	385	0.39	14	10	145	FS14	59	1/2"	99	580x480x760	110	720x670x970
Darwin SE 3.0-08-200	V77JS72PWS045	200	3	4	430	0.43	15	8	116	FS14	59	1/2"	155	1480x520x1280	188	1560x660x1430
Darwin SE 3.0-10-200	V77JQ72PWS045	200	3	4	385	0.39	14	10	145	FS14	59	1/2"	155	1480x520x1280	188	1560x660x1430
Darwin SE 3.0-08-200 DF	V77JS72PWS145	200	3	4	430	0.43	15	8	116	FS14	59	1/2"	177	1480x520x1280	210	1560x660x1430
Darwin SE 3.0-10-200 DF	V77JQ72PWS145	200	3	4	385	0.39	14	10	145	FS14	59	1/2"	177	1480x520x1280	210	1560x660x1430
4 kW																
Darwin SE 4.0-08	V51JR72PWS045	-	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	108	580x480x760	119	720x670x970
Darwin SE 4.0-10	V51JP72PWS045	-	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	108	580x480x760	109	720x670x970
Darwin SE 4.0-08-200	V77JR72PWS045	200	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	157	1480x520x1280	190	1560x660x1430
Darwin SE 4.0-10-200	V77JP72PWS045	200	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	157	1480x520x1280	190	1560x660x1430
Darwin SE 4.0-08-200 DF	V77JR72PWS145	200	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	179	1480x520x1280	212	1560x660x1430
Darwin SE 4.0-10-200 DF	V77JP72PWS145	200	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	179	1480x520x1280	212	1560x660x1430

ELECTRONIC DNAir1	Code	Air receiver	Po	wer	Ai	r outflow r	ate	M pre:	ax. ssure	Air-	Sound level	Air outlet	Net weight	Net dimensions	Gross weight	Gross dimensions
4-5.5 kW		I	kW	HP	l/min.	m³/min.	c.f.m.	bar	p.s.i.	CIIU	dB(A)	Ø	kg	L x W x H (mm)	kg	L x W x H (mm)
4 kW																
Darwin 4.0-08	V51JR92PWS045	-	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	103	580x480x760	114	720x670x970
Darwin 4.0-10	V51JP92PWS045	-	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	103	580x480x760	114	720x670x970
Darwin 4.0-13	V51JV92PWS045	-	4	5.5	330	0.33	12	13	189	FS14	60	1/2"	103	580x480x760	114	720x670x970
Darwin 4.0-08-200	V77JR92PWS045	200	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	153	1480x520x1280	186	1560x660x1430
Darwin 4.0-10-200	V77JP92PWS045	200	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	153	1480x520x1280	186	1560x660x1430
Darwin 4.0-08-200 DF	V77JR92PWS145	200	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	175	1480x520x1280	209	1560x660x1430
Darwin 4.0-10-200 DF	V77JP92PWS145	200	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	175	1480x520x1280	208	1560x660x1430
5.5 kW																
Darwin 5.5-08	V51JW92PWS045	-	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	126	600x520x780	137	720x670x970
Darwin 5.5-10	V51JO92PWS045	-	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	126	600x520x780	137	720x670x970
Darwin 5.5-13	V51JM92PWS045	-	5.5	7.5	485	0.49	17	13	189	FS14	64	1/2"	126	600x520x780	137	720x670x970
Darwin 5.5-08-270	V91JW92PWS045	270	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	202	1560x570x1390	245	1760x780x1680
Darwin 5.5-10-270	V91JO92PWS045	270	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	202	1560x570x1390	245	1760x780x1680
Darwin 5.5-08-500	V83JW92PWS045	500	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	268	2000x600x1480	308	2070x800x1680
Darwin 5.5-10-500	V83JO92PWS045	500	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	268	2000x600x1480	308	2070x800x1680
Darwin 5.5-08-270 DF	V91JW92PWS145	270	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	229	1560x570x1390	272	1760x780x1680
Darwin 5.5-10-270 DF	V91JO92PWS145	270	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	229	1560x570x1390	272	1760x780x1680
Darwin 5.5-13-270 DF	V91JM92PWS145	270	5.5	7.5	485	0.49	17	13	189	FS14	64	1/2"	229	1560x570x1390	272	1760x780x1680
Darwin 5.5-08-500 DF	V83JW92PWS145	500	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	304	2000x600x1480	344	2070x800x1680
Darwin 5.5-10-500 DF	V83JO92PWS145	500	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	304	2000x600x1480	344	2070x800x1680



DF = fixed speed model with refrigerated dryer and automatic condensate drain (filters excluded - refer to the Air treatment catalogue). Reference conditions: air intake temperature 20°C (68°F) – atmospheric pressure 1 bar (14.5 p.s.l.) Air flow was measured in the following operative pressures: 8 bar for models at 8 bar - 10 bar for models at 10 bar - 13 bar for models at 13 bar. The data and results were measured in accordance with standard ISO 1217. The sound level was measured in accordance with standard ISO 4151, with a tolerance of ±3 dB(A).

FIXED SPEED DNAir1	Code	Air receiver	. Po	ower	Ai	r outflow ra	ate	M pres	ax. ssure	Air-	Sound level	Air outlet	Net weight	Net dimensions	Gross weight	Gross dimensions
7.5-15 kW		1	kW	HP	l/min.	m³/min.	c.f.m.	bar	p.s.i.	end	dB(A)	Ø	kg	L x W x H (mm)	kg	L x W x H (mm)
7.5 kW																
Darwin 8-08	V60NG92PWS045	-	7.5	10	1250	1.25	44	8	116	FS26	68	3/4"	205	820x680x980	219	940x770x1150
Darwin 8-10	V60NH92PWS045	-	7.5	10	1000	1.00	35	10	145	FS26	68	3/4"	205	820x680x980	219	940x770x1150
Darwin 8-13	V60NI92PWS045	-	7.5	10	750	0.75	26	13	189	FS26	68	3/4"	205	820x680x980	219	940x770x1150
Darwin 8-15	V60NI92PWS245	-	7.5	10	670	0.67	24	15	218	FS26	68	3/4"	205	820x680x980	219	940x770x1150
Darwin 8-08-270	V91NG92PWS045	270	7.5	10	1250	1.25	44	8	116	FS26	68	3/4"	288	1560x680x1510	318	1720x750x1760
Darwin 8-10-270	V91NH92PWS045	270	7.5	10	1000	1.00	35	10	145	FS26	68	3/4"	288	1560x680x1510	318	1720x750x1760
Darwin 8-13-270	V91NI92PWS045	270	7.5	10	750	0.75	26	13	189	FS26	68	3/4"	288	1560x680x1510	367	1720x750x1760
Darwin 8-15-270	V91NI92PWS245	270	7.5	10	670	0.67	24	15	218	FS26	68	3/4"	288	1560x680x1510	367	1720x750x1760
Darwin 8-08-270 DF	V91NG92PWS145	270	7.5	10	1250	1.25	44	8	116	FS26	68	1"	315	1560x680x1510	345	1720x750x1760
Darwin 8-10-270 DF	V91NH92PWS145	270	7.5	10	1000	1.00	35	10	145	FS26	68	1"	315	1560x680x1510	345	1720x750x1760
Darwin 8-13-270 DF	V91NI92PWS145	270	7.5	10	750	0.75	26	13	189	FS26	68	1"	315	1560x680x1510	394	1720x750x1760
Darwin 8-15-270 DF	V91NI92PWS345	270	7.5	10	670	0.67	24	15	218	FS26	68	1"	315	1560x680x1510	394	1720x750x1760
Darwin 8-08-500	V83NG92PWS045	500	7.5	10	1250	1.25	44	8	116	FS26	68	3/4"	334	2000x680x1630	374	2070x800x1850
Darwin 8-10-500	V83NH92PWS045	500	7.5	10	1000	1.00	35	10	145	FS26	68	3/4"	334	2000x680x1630	374	2070x800x1850
Darwin 8-13-500	V83NI92PWS045	500	7.5	10	750	0.75	26	13	189	FS26	68	3/4"	334	2000x680x1630	374	2070x800x1850
Darwin 8-08-500 DF	V83NG92PWS145	500	7.5	10	1250	1.25	44	8	116	FS26	68	1"	361	2000x680x1630	401	2070x800x1850
Darwin 8-10-500 DF	V83NH92PW5145	500	7.5	10	750	0.75	35	10	145	F526	68	1.	361	2000x680x1630	401	2070x800x1850
11 kW	V83NI92PW5145	500	7.5	10	750	0.75	26	13	189	F526	68	1"	361	2000x680x1630	401	2070x800x1850
Darwin 11-08	V60NL92PWS045	-	11	15	1650	1.65	58	8	116	FS26	69	3/4"	216	820x680x980	230	940x770x1150
Darwin 11-10	V60NM92PWS045	-	11	15	1500	1.50	53	10	145	FS26	69	3/4"	216	820x680x980	230	940x770x1150
Darwin 11-13	V60NN92PWS045	-	11	15	1100	1.10	39	13	189	FS26	69	3/4"	216	820x680x980	230	940x770x1150
Darwin 11-15	V60NN92PWS245	-	11	15	980	0.98	35	15	218	FS26	69	3/4"	216	820x680x980	230	940x770x1150
Darwin 11-08-270	V91NL92PWS045	270	11	15	1650	1.65	58	8	116	FS26	69	3/4"	302	1560x680x1510	332	1720x750x1760
Darwin 11-10-270	V91NM92PWS045	270	11	15	1500	1.50	53	10	145	FS26	69	3/4"	302	1560x680x1510	332	1720x750x1760
Darwin 11-13-270	V91NN92PWS045	270	11	15	1100	1.10	39	13	189	FS26	69	3/4"	302	1560x680x1510	381	1720x750x1760
Darwin 11-15-270	V91NN92PWS245	270	11	15	980	0.98	35	15	218	FS26	69	3/4"	302	1560x680x1510	381	1720x750x1760
Darwin 11-08-270 DF	V91NL92PWS145	270	11	15	1650	1.65	58	8	116	FS26	69	1"	329	1560x680x1510	359	1720x750x1760
Darwin 11-10-270 DF	V91NM92PWS145	270	11	15	1500	1.50	53	10	145	FS26	69	1"	329	1560x680x1510	359	1720x750x1760
Darwin 11-13-270 DF	V91NN92PWS145	270	11	15	1100	1.10	39	13	189	FS26	69	1"	329	1560x680x1510	359	1720x750x1760
Darwin 11-15-270 DF	V91NN92PWS345	270	11	15	980	0.98	35	15	218	FS26	69	1"	329	1560x680x1510	359	1720x750x1760
Darwin 11-08-500	V83NL92PWS045	500	11	15	1650	1.65	58	8	116	FS26	69	3/4"	353	2000x680x1630	393	2070x800x1850
Darwin 11-10-500	V83NM92PWS045	500	11	15	1500	1.50	53	10	145	FS26	69	3/4"	353	2000x680x1630	393	2070x800x1850
Darwin 11-13-500	V83NN92PWS045	500	11	15	1100	1.10	39	13	189	FS26	69	3/4"	353	2000x680x1630	393	2070x800x1850
Darwin 11-08-500 DF	V83NL92PW5145	500	11	15	1650	1.65	58	8	145	F520	69		380	2000x680x1630	420	2070x800x1850
Darwin 11-10-500 DF	V03NW92PW5145	500	11	15	1100	1.50	20	10	140	F520	69		300	2000x680x1630	420	2070x800x1850
15 kW	V03ININ92PW3143	500	11	15	1100	1.10	39	13	109	F320	09	1	360	2000x080x1030	420	2070280021850
Darwin 15-08	V60NP92PWS045	-	15	20	2150	2.15	76	8	116	FS26	70	3/4"	220	820x680x980	234	940x770x1150
Darwin 15-10	V60NQ92PWS045	-	15	20	1850	1.85	65	10	145	FS26	70	3/4"	220	820x680x980	234	940x770x1150
Darwin 15-13	V60NR92PWS045	-	15	20	1500	1.50	53	13	189	FS26	70	3/4"	220	820x680x980	234	940x770x1150
Darwin 15-15	V60NR92PWS245	-	15	20	1300	1.30	46	15	218	FS26	70	3/4"	220	820x680x980	234	940x770x1150
Darwin 15-08-500	V83NP92PWS045	500	15	20	2150	2.15	76	8	116	FS26	70	3/4"	383	2000x680x1630	423	2070x800x1850
Darwin 15-10-500	V83NQ92PWS045	500	15	20	1850	1.85	65	10	145	FS26	70	3/4"	383	2000x680x1630	423	2070x800x1850
Darwin 15-13-500	V83NR92PWS045	500	15	20	1500	1.50	53	13	189	FS26	70	3/4"	383	2000x680x1630	423	2070x800x1850
Darwin 15-15-500	V83NR92PWS245	500	15	20	1300	1.30	46	15	218	FS26	70	3/4"	383	2000x680x1630	455	2070x800x1850
Darwin 15-08-500 DF	V83NP92PWS145	500	15	20	2150	2.15	76	8	116	FS26	70	1"	412	2000x680x1630	452	2070x800x1850
Darwin 15-10-500 DF	V83NQ92PWS145	500	15	20	1850	1.85	65	10	145	FS26	70	1"	412	2000x680x1630	452	2070x800x1850
Darwin 15-13-500 DF	V83NR92PWS145	500	15	20	1500	1.50	53	13	189	FS26	70	1"	412	2000x680x1630	452	2070x800x1850
Darwin 15-15-500 DF	V83NR92PWS345	500	15	20	1300	1.30	46	15	218	FS26	70	1"	412	2000x680x1630	452	2070x800x1850
15 kW with FS50 air-end					0050	0.05				5050		0.41				
Darwin 16-08	V60NB92PWS045	-	15	20	2350	2.35	83	8	116	FS50	68	3/4"	234	820x680x980	248	940x770x1150
Darwin 16-10	VOUN 192PWS045	-	15	20	2050	2.05	72	10	145	FS50	68	3/4"	234	820x680x980	248	940x770x1150
Darwin 16-13	VOUNW92PWS045	-	15	20	1/50	1.75	62	13	189	FS50	68	3/4"	234	820X680X980	248	94UX//UX1150
Darwin 10-08-500	VOSINB92PWS045	500	15	20	2350	2.35	83 70	0 10	116	F550	60	3/4"	410	2000x680x1630	450	2070x800x1850
Darwin 10-10-500	V03IN 192PW5045	500	15	20	2050	2.05	62	10	145	F000	80	3/4"	410	2000x680x1630	400	2070x800x1850
Darwin 16 09 500 DE	V92NP00DW0445	500	15	20	1750	1.75	02	0	1109	ESE0	60	3/4	410	2000x060x1630	470	207020001050
Darwin 16-10-500 DF	V83NV02DW6145	500	10	20	2050	2.30	03 70	10	1/5	F000	00	4.0	439	2000x000X1030	4/9	207020000000000000000000000000000000000
Darwin 16-13-500 DF	V83NW/02DW/0145	500	15	20	1750	1 75	62	10	140	F950	68	1"	439	2000x080x1630	511	2070x800x1850
Darwin 10-10-000 DF	+00111132F W3143	500	13	20	1730	1.70	02	13	109	1 330	00	· ·	408	2000700071030		2010/0000 1000

DF = fixed speed model with refrigerated dryer and automatic condensate drain (filters excluded - refer to the Air treatment catalogue).
Reference conditions: air intake temperature 20°C (68°F) – atmospheric pressure 1 bar (14.5 p.s.i.).
Air flow was measured in the following operative pressures:
8 bar for models at 8 bar - 10 bar for models at 10 bar - 13 bar for models at 13 bar - 15 bar for models at 15 bar.
The data and results were measured in accordance with standard ISO 1217.
The sound level was measured in accordance with standard ISO 2151, with a tolerance of ±3 dB(A).



FIXED SPEED DNAir2	Code	Pov	wer	Air	outflow ra	ate	M pres	ax. ssure	Air-end	Sound level	Air outlet	Net weight	Net dimensions	Gross weight	Gross dimensions
18.5-75 kW		kW	HP	l/min.	m³/min.	c.f.m.	bar	p.s.i.		dB(A)	Ø	kg	L x W x H (mm)	kg	L x W x H (mm)
18.5 kW															
Darwin 18.5-08	V60QA92PWS045	18.5	25	2800	2.80	99	8	116	FS50	66	1"	397	1360x830x1130	470	1530x1000x1380
Darwin 18.5-10	V60QB92PWS045	18.5	25	2500	2.50	88	10	145	FS50	66	1"	397	1360x830x1130	470	1530x1000x1380
Darwin 18.5-13	V60QC92PWS045	18.5	25	2150	2.15	76	13	189	FS50	66	1"	397	1360x830x1130	470	1530x1000x1380
Darwin 18.5-15	V60QC92PWS245	18.5	25	1650	1.65	58	15	218	FS50	66	1"	397	1360x830x1130	470	1530x1000x1380
Darwin 18.5-08 DF	V60QA92PWS145	18.5	25	2800	2.80	99	8	116	FS50	66	1" 1/4	447	1740x830x1130	537	2050x1140x1670
Darwin 18.5-10 DF	V60QB92PWS145	18.5	25	2500	2.50	88	10	145	FS50	66	1" 1/4	447	1740x830x1130	537	2050x1140x1670
Darwin 18.5-13 DF	V60QC92PWS145	18.5	25	2150	2.15	76	13	189	FS50	66	1" 1/4	447	1740x830x1130	537	2050x1140x1670
22 kW						1			1		1				
Darwin 22-08	V60QD92PWS045	22	30	3350	3.35	118	8	116	FS50	68	1"	419	1360x830x1130	492	1530x1000x1380
Darwin 22-10	V60QE92PWS045	22	30	3000	3.00	106	10	145	FS50	68	1"	419	1360x830x1130	492	1530x1000x1380
Darwin 22-13	V60QF92PWS045	22	30	2400	2.40	85	13	189	FS50	68	1"	419	1360x830x1130	492	1530x1000x1380
Darwin 22-15	V60QF92PWS245	22	30	1970	1.97	70	15	218	FS50	68	1"	419	1360x830x1130	492	1530x1000x1380
Darwin 22-08 DF	V60QD92PWS145	22	30	3350	3.35	118	8	116	FS50	68	1" 1/4	469	1740x830x1130	559	2050x1140x1670
Darwin 22-10 DF	V60QE92PWS145	22	30	3000	3.00	106	10	145	FS50	68	1" 1/4	469	1740x830x1130	559	2050x1140x1670
Darwin 22-13 DF	V60QF92PWS145	22	30	2400	2.40	85	13	189	FS50	68	1" 1/4	469	1740x830x1130	559	2050x1140x1670
30 kW		1						1							
Darwin 31-08	V60BU92PWS045	30	40	4700	4.70	166	8	116	FS100	70	1" 1/4	663	1530x880x1440	737	1690x1030x1730
Darwin 31-10	V60BV92PWS245	30	40	4200	4.20	148	10	145	FS100	70	1" 1/4	663	1530x880x1440	737	1690x1030x1730
Darwin 31-13	V60BW92PWS045	30	40	3400	3.40	120	13	189	FS100	70	1" 1/4	663	1530x880x1440	737	1690x1030x1730
Darwin 31-08 DF	V60BU92PWS145	30	40	4700	4.70	166	8	116	FS100	70	1" 1/2	728	1860x910x1440	818	2050x1140x1670
Darwin 31-10 DF	V60BV92PWS345	30	40	4200	4.20	148	10	145	FS100	70	1" 1/2	728	1860x910x1440	818	2050x1140x1670
Darwin 31-13 DF	V60BW92PWS145	30	40	3400	3.40	120	13	189	FS100	70	1" 1/2	728	1860x910x1440	818	2050x1140x1670
37 kW						1		1	1		1				
Darwin 38-08	V60BK92PWSA45	37	50	6000	6.00	212	7.5	109	FS140	68	1" 1/4	724	1530x880x1440	798	1690x1030x1730
Darwin 38-10	V60BJ92PWSA45	37	50	5300	5.30	187	10	145	FS140	68	1" 1/4	724	1530x880x1440	798	1690x1030x1730
Darwin 38-13	V60BI92PWSA45	37	50	4000	4.00	141	13	189	FS140	68	1" 1/4	724	1530x880x1440	798	1690x1030x1730
Darwin 38-08 DF	V60BK92PWSB45	37	50	6000	6.00	212	7.5	109	FS140	68	1" 1/2	789	1860x910x1440	879	2050x1140x1670
Darwin 38-10 DF	V60BJ92PWSB45	37	50	5300	5.30	187	10	145	FS140	68	1" 1/2	789	1860x910x1440	879	2050x1140x1670
Darwin 38-13 DF	V60BI92PWSB45	37	50	4000	4.00	141	13	189	FS140	68	1" 1/2	789	1860x910x1440	879	2050x1140x1670
45 kW		1				1		1	1		1				
Darwin 45-08	V60BM92PWSA45	45	60	7200	7.20	254	7.5	109	FS140	72	1" 1/2	946	1590x1000x1570	1032	1800x1200x2110
Darwin 45-10	V60BN92PWSA45	45	60	6500	6.50	230	10	145	FS140	72	1" 1/2	946	1590x1000x1570	1032	1800x1200x2110
Darwin 45-13	V60BQ92PWSA45	45	60	5100	5.10	180	13	189	FS140	72	1" 1/2	946	1590x1000x1570	1032	1800x1200x2110
55 kW		1				1									
Darwin 55-08	V60BR92PWSA45	55	75	8600	8.60	304	7.5	109	FS140	74	1" 1/2	1009	1590x1000x1570	1095	1800x1200x2110
Darwin 55-10	V60BS92PWSA45	55	75	7800	7.80	275	10	145	FS140	74	1" 1/2	1009	1590x1000x1570	1095	1800x1200x2110
Darwin 55-13	V60BT92PWSA45	55	75	6400	6.40	226	13	189	FS140	74	1" 1/2	1009	1590x1000x1570	1095	1800x1200x2110
55 kW with FS270 air-en	d					1			1		1				
Darwin 56-08	V60BA92PWSA45	55	75	9300	9.30	328	7.5	109	FS270	70	2"	1360	1800x1140x1860	1470	2000x1290x2270
Darwin 56-10	V60BB92PWSA45	55	75	8300	8.30	293	10	145	FS270	70	2"	1360	1800x1140x1860	1470	2000x1290x2270
Darwin 56-13	V60BC92PWSA45	55	75	7000	7.00	247	13	189	FS270	70	2"	1360	1800x1140x1860	1470	2000x1290x2270
75 kW															
Darwin 75-08	V60BD92PWSA45	75	100	12200	12.20	431	7.5	109	FS270	72	2"	1470	1800x1140x1860	1580	2000x1290x2270
Darwin 75-10	V60BE92PWSA45	75	100	10500	10.50	371	10	145	FS270	72	2"	1470	1800x1140x1860	1580	2000x1290x2270
Darwin 75-13	V60BF92PWSA45	75	100	8300	8.30	293	13	189	FS270	72	2"	1470	1800x1140x1860	1580	2000x1270x2270

DF = fixed speed model with refrigerated dryer and automatic condensate drain (filters excluded - refer to the Air treatment catalogue). Reference conditions: air intake temperature 20°C (68°F) – atmospheric pressure 1 bar (14.5 p.s.i.). Air flow was measured in the following operative pressures: Darwin 18.5-22-31: 8 bar for models at 8 bar - 10 bar for models at 10 bar - 13 bar for models at 13 bar - 15 bar for models at 15 bar. Darwin 38-45-55-56-75: 7.5 bar for models at 7.5 bar - 10 bar for models at 10 bar - 13 bar for models at 13 bar. The data and results were measured in accordance with standard ISO 1217.





VARIABLE SPEED							M	lav		Sound	Air	Not	Not	Groce	Groce
DNAir2	Code	Po	wer	Air outfle	ow rate (minm	ax.)	pre	ssure	Air-	level	outlet	weight	dimensions	weight	dimensions
22-75 kW		kW	HP	I/min.	m³/min.	c.f.m.	bar	p.s.i.	enu	dB(A)	Ø	kg	L x W x H (mm)	kg	L x W x H (mm)
22 kW															
Darwin 22-08 DV	V60QD97PWS045	22	30	1350-3350	1.35-3.35	48-118	8	116	FS50	68	1"	437	1360x830x1130	519	1530x1000x1380
Darwin 22-10 DV	V60QE97PWS045	22	30	1220-3050	1.22-3.05	43-108	10	145	FS50	68	1"	437	1360x830x1130	519	1530x1000x1380
Darwin 22-08 DVF	V60QD97PWS145	22	30	1350-3350	1.35-3.35	48-118	8	116	FS50	68	1" 1/4	487	1740x830x1130	586	2050x1140x1670
Darwin 22-10 DVF	V60QE97PWS145	22	30	1220-3050	1.22-3.05	43-108	10	145	FS50	68	1" 1/4	487	1740x830x1130	586	2050x1140x1670
30 kW															
Darwin 31-08 DV	V60BU97PWS045	30	40	1700-4700	1.70-4.70	60-166	8	116	FS100	67	1" 1/4	695	1530x880x1440	756	1690x1030x1730
Darwin 31-10 DV	V60BV97PWS045	30	40	1500-4200	1.50-4.20	53-148	10	145	FS100	68	1" 1/4	695	1530x880x1440	756	1690x1030x1730
Darwin 31-13 DV	V60BW97PWS045	30	40	1300-3400	1.30-3.40	46-120	13	189	FS100	64	1" 1/4	695	1530x880x1440	756	1690x1030x1730
37 kW															
Darwin 38-08 DV	V60BK97PWSA45	37	50	2400-6000	2.40-6.00	85-212	8	116	FS140	68	1" 1/4	748	1530x880x1440	817	1690x1030x1730
Darwin 38-10 DV	V60BJ97PWSA45	37	50	2100-5300	2.10-5.30	74-187	10	145	FS140	68	1" 1/4	748	1530x880x1440	817	1690x1030x1730
Darwin 38-08DVF	V60BK97PWSB45	37	50	2400-6000	2.40-6.00	85-212	8	116	FS140	68	1" 1/2	813	1860x910x1440	898	2050x1140x1670
Darwin 38-10DVF	V60BJ97PWSB45	37	50	2100-5300	2.10-5.30	74-187	10	145	FS140	68	1" 1/2	813	1860x910x1440	898	2050x1140x1670
55 kW	1														
Darwin 56-08 DV	V60BA97PWSA45	55	75	3700-9300	3.70-9.30	131-328	8	116	FS270	70	2"	1396	1800x1140x1860	1515	2000x1290x2270
Darwin 56-10 DV	V60BB97PWSA45	55	75	3300-8300	3.30-8.30	117-293	10	145	FS270	70	2"	1396	1800x1140x1860	1515	2000x1290x2270
75 kW															
Darwin 75-08 DV	V60BD97PWSA45	75	100	4800-12200	4.80-12.20	170-431	8	116	FS270	72	2"	1506	1800x1140x1860	1645	2000x1290x2270
Darwin 75-10 DV	V60BE97PWSA45	75	100	4200-10500	4.20-10.50	148-371	10	145	FS270	72	2"	1506	1800x1140x1860	1645	2000x1290x2270

*DV* = variable speed model with inverter. *DVF* = variable speed model with inverter, with refrigerated dryer and automatic condensate drain (filters excluded - refer to the Air treatment catalogue). Reference conditions: air intake temperature 20°C (68°F) – atmospheric pressure 1 bar (14.5 p.s.i.). Air flow was measured in the following operative pressures: 7.5 bar for models at 8 bar - 9.5 bar for models at 10 bar. The data and results were measured in accordance with standard ISO 1217.

The sound level was measured in accordance with standard ISO 2151, with a tolerance of ±3 dB(A).





Compressor	Motor power	Air receiver	Dryer	Air flow	Filter kit
IIIOUEI	kW	I	type	m³/min.	code
	2.2-5.5	200-270-500	RD17	1.6	#260KFL010
DARWIN	7.5 - 11	270	RD17	2.5	#260KFL020
	7.5-11-15	500	RD17-RD24	2.5	#260KFL030



#### A complete solution

For all 2.2 to 15 kW versions with air receiver and dryer it is possible to retrofit the optional filter kits (1 prefilter and 1 microfilter) to obtain a complete machine, without any additional bulk.



# Extend the life and efficiency of your compressor

Power System is a guarantee of high quality products and technology content, as well as attention focused on Customer requirements. Complete technical and commercial support is guaranteed through a competent team, that is able to offer over-the-phone help desk, on-site technical consulting, customised estimates, maintenance programs, refresher courses, etc. Tailored solutions are suggested to fulfil specific needs.

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#### The importance of original spare parts

FSN is the brand of the original spare parts for all Power System compressors and it also identifies after-sales services. FSN guarantees that the components are original and that they were carefully selected, checked and tested by skilled technicians.

Using FSN certified original spare parts reduces management costs and guarantees the efficiency, reliability and longevity of the compressor.

Our "Hot-Line" service guarantees the delivery of urgent spare parts within 24 hours from the order.

## Long Life Kit: for the scheduled maintenance of Power System screw compressors

To simplify the replacement of service items and to assist with efficient planning of routine maintenance,

Power System has developed new spare parts packaging in the form of a "LONG-LIFE KIT", specially designed for each screw compressor model. By utilising our Long-Life Kit customers benefit from: increased maintenance intervals, improved energy efficiency, reduced costs and at the same time ensuring the product's continued performance and reliability and at the same time protecting your investment.

#### **Rely on our TRUST**

POWER SYSTEM's 30 years of premium quality rotary screw compressors functioning all over the world is our undeniable proof of knowledge, experience, leadership in innovative and advanced solutions. This is where originates our total confidence and commitment in offering a range of extendend warranty packages to our Clients allowing them to guarantee their investment to up to 5 years. Preventive programmed maintenance routines carried out only by authorized skilled and experienced technical staff, genuine original spare parts, hundreds of different field applications experiences is what makes our products completely reliable over time.

Our TRUST Extended warranty packages are easily activated online through EasyConnect, the new portal of Power System services, specially created to allow our Clients a direct line with us, with fast and clear answers on product availability, orders management, technical literature database.



FBN

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We fear no comparisons. Choose TRUST, choose quality!





#### The importance of specific lubricants

#### MINERAL OIL "RotarECOFLUID" 46 cSt

#600000020	1 x 3.8-litre can (3.3 kg)
#600000021	1 x 20-litre can (17.36 kg)
#600000022	1 x 200-litre drum (174 kg)

Formulated with high quality selected mineral oils, it offers an optimal control of oxidation and residue deposits as well as an excellent level of thermal stability and oxidation to ensure the longevity of equipment and long life performances.

#### SYNTHETIC OIL "RotEnergyPlus" 46 CST

#600000018A	1 x 3.8-litre can (3.25 kg)
#60000007A	1 x 19-litre can (16 kg)
#600000012A	1 x 208-litre drum (181 kg)

Ensures quick water separation and lower frictions and energy consumptions, extends maintenance intervals and ensures excellent lubrication of the bearings while offering an excellent protection.

#### SYNTHETIC OIL "RotEnergyFood" 46 CST

#600000019A	1 x 3.9-litre can (3.25 kg)
#600000016A	1 x 19-litre can (18.5 kg)
#600000017A	1 x 208-litre drum (175 kg)

WARRANTY

QUALITY

PROTECTION

A high quality lubricant for rotary compressors, suitable for use in the food industry, where high and specific quality standards are required.

RELIABILITY

Our FSN mineral or synthetic based lubricants, are specifically designed for use on our screw compressors, supplied by world leading manufacturers. They are available in cans or drums.

We recommend changing the oil according to the interval reported in the use and maintenance manual of the compressor or once a year. We recommend using our original RotarECOFLUID mineral oils, or RotEnergyPlus and RotEnergyFood synthetic oils (OILS NOT INCLUDED IN LONG LIFE KITS).

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EFFICIENCY

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#### **ORIGINAL SPARE PARTS**

You can download the Long Life Kit catalogues from the website www.powersystem.it and see the exploded diagrams and spare parts list online, which are continuously updated for each compressor model.



24h



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